



H 431

THE CHANGE OF LIFE

IN

HEALTH AND DISEASE.

BY THE SAME AUTHOR.

ON DISEASES OF WOMEN

And Ovarian Inflammation,

IN RELATION TO MORBID MENSTRUATION, STERILITY, PELVIC TUMOURS,
AND AFFECTIONS OF THE WOMB.

Second Edition. Octavo, cloth, 9s.

London: CHURCHILL, New Burlington-street.

ELEMENTS OF HEALTH,

And Principles of Female Hygiene.

Post Octavo, cloth, 6s.

London: Bohn, York-street, Covent-garden.

THE CHANGE OF LIFE

IN

HEALTH AND DISEASE.

A PRACTICAL TREATISE

ON

THE NERVOUS AND OTHER AFFECTIONS

INCIDENTAL TO

Women at the Decline of Life.

BY

EDWARD JOHN TILT, M.D.

SENIOR PHYSICIAN TO THE FARRINGTON GENERAL DISPENSARY AND LYING-IN CHARITY
 FELLOW OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY,
 AND OF SEVERAL FOREIGN SOCIETIES.



Second Edition.

LONDON:

JOHN CHURCHILL, NEW BURLINGTON STREET.

MDCCCLVII.

1802

The General

London

4

LONDON:

SAVILL AND EDWARDS, PRINTERS, CHANDOS STREET,
COVENT GARDEN.



PREFACE.

SEVERAL years have elapsed since I published a little work on *Diseases of the Change of Life*; since then, I have been diligently engaged in collecting the materials for a fuller elucidation of the subject; and if, in the course of this second edition, I more frequently refer to personal observation than to the writings of medical authorities, it is simply because few have written upon the affections incidental to the change of life, although their frequency and importance are generally recognised.

The extinction of reproductive power gives an emphatic interest to that period of the lifetime of woman comprised within the 40th and 50th years, were it even unattended by many constitutional changes and morbid phenomena. My views on these points will be found sketched in an introductory chapter, and in the following, the results of some interesting inquiries into the physiology of this epoch; but I am anxious to draw the reader's attention to that portion of the work which relates to nervous diseases.

The present century has witnessed magnificent discoveries in the pathology of the brain and of the spinal marrow; but it will be obvious to those conversant with medical literature that the pathology of the ganglionic nervous system has received comparatively little attention, neither can it be much

advanced until experimental physiologists have accurately investigated many points connected with the physiology of the ganglia and their nerves. My object has been to prepare the ground for other labourers, by throwing on an intricate subject all the light I could collect. I have, moreover, attempted to trace the boundary-line between cerebral and ganglionic affections, now considered entirely dependent upon cerebro-spinal disturbance, largely illustrating the varied relations in which cerebral disorders stand to ganglionic affections. I have also sought to show that there are several distinct morbid conditions of the nervous system to which the term hysterical is indiscriminately applied.

The first edition has been long out of print, and an apology may be due for the delay in the appearance of the second; but the prosecution of my undertaking has been so repeatedly interrupted, that I have been obliged again and again to pass over the same ground—a mental process very tedious and irksome to an author, but well calculated to give maturity to his views.

E. J. T.

60 Grosvenor St
~~11, YORK STREET, PORTMAN SQUARE,~~
January, 1857.

TABLE OF CONTENTS.

CHAPTER I.

INTRODUCTION.

Synonymy of the change of life—Definition of cessation; of the dodging-time; of the c. of life—Importance of the epoch—Bibliographical details—Influence of the c. of life not invalidated by statistics—Critical, not equivalent to fatal—Definition of crisis—Critical periods—The c. of life full of critical phenomena—Sanative influence of the c. of life—Its influence on insanity—Influence of critical epochs on subsequent periods—The materials of the present work not derived from books—Tabulated results of disease at the c. of life—Physiology and pathology, twin-born sciences. . . . pp. 1—8

CHAPTER II.

ON THE PHYSIOLOGY OF THE CHANGE OF LIFE.

Historical sketch of the reproductive function in woman—Ovarian evolution and involution—Anatomical changes in the ovaries before and after cessation—Theory of ovarian action—Induction of the healthy and morbid symptoms of menstruation—Date of cessation—Cases of protracted cessation and fecundity—Tables of fecundity—Causes of protracted cessation—Cases of early cessation—Causes of early cessation—Diagnosis of cessation—Physiognomy of women at the c. of life—Three types of women at the c. of life; the plethoric; the chlorotic; the nervous—Diagnosis of cessation from chlorosis; from inflammation of the neck of the womb; from uterine polypus; from hydatids; from cancer; from pregnancy—Cases of spurious pregnancy—Length of time allotted for the c. of life—Average duration of the m. flow and of fecundity—Fecundity possible at the c. of life and after cessation—Eccentricities of the reproductive function—Modes of termination of the m. flow—A practitioner's view of the ovular theory—To remodel the constitution is the object of the c. of life—Interstitial using up of the redundant blood—Increase of fat—Less fat deposited during the dodging-time—More fat accumulated during the second half of the c. of life—Compensating agencies of the m. flow—Periodical occurrence of some symptoms—Relief afforded by respiration; by increased urinary deposits; by increased cutaneous exhalation—Table of cutaneous exhalations—Theory of flushes—Theory of animal heat—Extent of cutaneous surface—Amount of perspiration—Its analysis—Its critical nature—Relief afforded by mucous discharges—Table of mucous discharges—Periodical leucorrhœa—Relief afforded by

hæmorrhage—Table of hæmorrhages—Vicarious menstruation—Definitive results of the c. of life—Improvement in health—Comparative freedom from disease—Increased chance of longevity—The *physique* of woman before and after the final restoration—The mental faculties before and after the final restoration—The moral faculties before and after the final restoration—Modifications induced by constitution and by temperament . . . pp. 9—68

CHAPTER III.

GENERAL PRINCIPLES OF PATHOLOGY AT THE CHANGE OF LIFE.

Diseases of the c. of life incorrectly viewed—Pathology of ages—Morbid liabilities of the c. of life—Table of their comparative frequency—Classification of diseases of the c. of life—Causes of disease at the c. of life—Weakness of constitution—Temperamental organization—Weakness of some particular organ—Constitutional diseases—Uterine affections—Unusual suffering at puberty and menstrual eccentricities—Sudden stoppage of the menstrual flow—Disuse or abuse of the reproductive organs—Social position—Real cause of immunity from diseases of the c. of life—Blood theory of diseases of the c. of life—Nervous theory of diseases of the c. of life—Comparative amount of suffering at the c. of life—Modes of suffering—Prognosis of diseases of cessation . . . pp. 69—82

CHAPTER IV.

GENERAL PRINCIPLES OF THERAPEUTICS.

Modes of treatment pointed out by nature—Bleeding, as practised by nature—Bleeding, no longer fashionable; why gone out of fashion; advisable in the plethoric type; sometimes erroneously prescribed for nervous symptoms—Cases in proof—Bleeding, whether from arm or leg—Advantages of full bleeding indicated by nature—Small bleedings most frequently adopted by nature—Leeches and cupping—Leeching the womb disapproved of—Purgatives—Nature purges—Cases—Purgatives not to be given at a menstrual period—Purgatives most frequently given—Alkalies and diuretics—Given as tissue destroyers; as antacids; as blood-improvers—Sedatives—Their necessity shown by nature—Utility to be derived from their more systematic exhibition—Their anaphrodisiac properties render them useful at the c. of life—Sedatives suit the nervous and the chlorotic types—How to be given to the plethoric and bilious—Advantages of their external exhibition; of their exhibition by the rectum—Modes of giving opium; hyoscyamus; belladonna; camphor; cherry-laurel water; lupulin—Sudorifics—Their utility shown by nature—Instances of their utility—Sulphur—Baths—Witnesses in favour of their utility—Their three modes of utility—English prejudices against bathing—Authorities in favour of prolonged baths—Sedative effect of baths—Danger of hot baths at the c. of life—Counter-stimulants often required—Heat the best—Issues—Supposed operation of issues—Their advocacy by some authors—Mineral waters of Aix en Savoie—Their chemical composition; effects; doses; modes of administration; curative power, pp. 83—116

CHAPTER V.

HYGIENE OF WOMEN DURING THE CHANGE OF LIFE.

Reasons why women should be made acquainted with what is to occur—Exaggerated fears dispelled—Real dangers anticipated—Signs of the times—"Principiis obsta"—Hygiene of the reproductive functions—Numbers married during the c. of life—Motives for late marrying—Sexual impulse at the c. of life, a sign of disease—Case—Hygienic applications—Hygiene of the digestive functions—Less food required—Daily regimen of the plethoric type, breakfast, dinner, supper—Danger of stimulants—Abuse of tea—Homœopathic regimen—Abdominal belts required, and well-adapted stays—Hygiene of the cutaneous functions—Utility of bathing—Cosmetic baths—Utility of friction—Dress and flannel—Hygiene of the muscular system—Exercise relieves the congestion of internal organs, evacuates more urea, increases perspiration, and expends the morbid concentrations of nervous energy—Modes of exercise—Equitation unadvisable—Hygiene of the nervous system—The habits of life should be suited to the exigencies of the period—Danger of suddenly communicating bad news—Sleep, and its adaptations—Sleeplessness—Travelling, and its combined advantages—Mineral waters not to be taken without advice—Mental and moral hygiene—Medical ingenuity sorely taxed—Various motives for consolation to be suggested to women—Autumnal beauty of woman—Management of society trusted to women after cessation—Woman's chief mission after cessation, pp. 117—181

CHAPTER VI.

DISEASES OF THE REPRODUCTIVE ORGANS AT THE CHANGE OF LIFE.

Table of liability to diseases of the reproductive organs during the c. of life—Liability to disease of the reproductive organs after cessation—Diseases of menstruation at the c. of life—Regularization of the m. flow—Case—Remittent menstruation—Treatment—Flooding—Diagnosis of flooding—Flooding from polypus, from uterine ulceration, from cancer—Causes of flooding—Dangers of flooding—Dangers of its too sudden stoppage—Treatment of the attack by antimony, ice, tannin, turpentine—Baths—Bandaging of limbs—Preventive treatment—Bleeding, sedatives, and salines—Leucorrhœa seldom a disease—Vaginitis—Its treatment—Nymphomania—Importance of the subject—Degree of frequency at the c. of life—Local disorders determining it—Nymphomania in after life—Follicular inflammation of the vulva—Its degree of frequency at the c. of life—Treatment—Acetate of lead lotions; acetate of lead powder; sedative rectal injections; nitrate of silver lotion; mercurial lotion—Prurigo pudendi—Frequency at the c. of life—Treatment—Valvo-vaginal neuralgia, a rare disease—Its treatment—Uterine diseases—Uterine catarrh and its treatment—Chronic, hard enlargement of the neck of the womb—Soft enlargement of the neck of the womb—Erectile growth of the neck of the womb—Ulceration of the neck of the womb—Its degree of frequency—Cases—Treatment of uterine

affections—Surgical treatment necessary—Nitrate of silver, solid and in solution—Injections—Treatment of chronic swelling of the womb—External application of tincture of iodine—Internal exhibition of Davenport's syrup of iron and potassium—Potassa fusa c. calce—A safe application in skilful hands—Employed by some to cause a superficial eschar—By others, to cause deep loss of substance—its action uncontrollable in inexperienced hands—Uterine deviations frequently observed—Their freedom from pain—Fallacy of uterine mechanics—Uterine polypi—Their degree of frequency—Uterine fibrous tumours—Impulse given to them by the c. of life—Their frequent atrophy after cessation—Iodine treatment—Calcareous uterine tumours—Cancerous diathesis—Cancer most frequent from 40 to 50—Cancer of the womb most frequent during those years—Treatment of cancer—Belladonna—Cold-water irrigations—Ovarian chronic tumours—Their degree of frequency; effects on the m. flow; often stationary at cessation; treatment by iodine—Vesical affections—Hæmaturia—Dysuria and incontinence of urine—Erectile tumour of the meatus urinarius—Surgical treatment by nitric acid—Mammary affections—Mammary irritation and discharges—Treatment—Non-malignant tumours—Sometimes atrophied at cessation—Cancer of the breast pp. 132—160

CHAPTER VII.

DISEASES OF THE DIGESTIVE ORGANS AT THE CHANGE OF LIFE.

Table of liability to diseases of the digestive organs—The experience of other authors—Obstinacy of biliary affections at the c. of life—Cases of dyspepsia—Water-brash—Hæmatemesis—Treatment of biliary affections by purgatives; mercurials; alkalies; bleeding; mineral waters—Vichy and Aix en Savoie—Diarrhœa at the c. of life generally serviceable, sometimes dangerous—Cases—Treatment—Entorrhagia—Cases—Hæmorrhoids—Their frequency tabulated—Causes of their frequency—Treatment—Bleeding and sulphur—Constitutional treatment—Inflammation of the rectum—Mild degrees unnoticed—A severe case pp. 161—174

CHAPTER VIII.

DISEASES OF THE SKIN AT THE CHANGE OF LIFE.

Table showing the liability to diseases of the skin—Flushes, or "ardor volaticus"—Their aggravating causes—Dry heats—Burning sensations in the feet and hands—Continued sensation of internal cold—Sweats, their frequency; less useful than perspiration; difficult to check—Persistence of strength, notwithstanding sweats—Effects of supposed perspiration at the c. of life—Treatment—Small bleedings; sedatives; salines; acids; lotions; powders—Treatment of suppressed perspiration—Hot and vapour baths—Cutaneous affections—Their frequency—Experience of other authors—Mr. Erasmus Wilson—Mr. Thomas Hunt—Case of nettle-rash at the c. of life—Cutaneous eruptions at puberty recur at the c. of life—Ulceration of legs—Varicose veins—Aix en Savoie—Its mineral waters . . pp. 175—182

CHAPTER IX.

NEURALGIC AFFECTIONS AT THE CHANGE OF LIFE.

Table showing the relative proportion of neuralgic affections at the c. of life—Nervous endowment of the reproductive organs—Lumbo-dorsal neuralgia—Its frequency—Hypogastric neuralgia—Its frequency—Dry colics—Case of lumbo-abdominal neuralgia—Treatment—Sedative injections; soothing liniments; sedative plasters; blisters; wadding poultices—Paraplegia—Experience of other authors—R. Leroy d'Etiolles' inquiry at the Salpêtrière—Ollivier d'Angers' case—Case showing the utility of leeches to the womb—Treatment—Martyrizing the back unnecessary—Admirable effects of the waters of Aix en Savoie—Case of Sciatica—Case of intercostal neuralgia—Neuralgic affections of the eyes—Experience of other authors—Deafness at the c. of life, not senile deafness—Caused by inflammation; by eczematous eruption of the external auditory canal; by pseudo-narcotism—Aphonia—Case—Treatment by ether; chloroform; emetics—Rheumatic pains—Their great frequency and causes—Treatment—Heat, in every form, beneficial—The baths and waters of Aix en Savoie useful . pp. 183—198.

CHAPTER X.

DISEASES OF THE GANGLIONIC NERVOUS SYSTEM AT THE CHANGE OF LIFE.

Table showing the liability to diseases of the ganglionic nervous system in 500 women at the c. of life—Diseases of the ganglionic nervous system said to be unknown—Sir H. Holland's estimate of our knowledge upon this point—Physiology of the ganglionic nervous system likewise imperfect—Its anatomy a bone of contention—Claude Bernard's experiments—Dr. H. Jones' views on ganglionic pathology—Debility and exhaustion—It underlies all ganglionic affections—Sliding scale between the severest forms of cardialgia and the slightest sensations of faintness—Description of faintness—Leipothymia and syncope—Definition of syncope; of fainting; of faintness—Definition of fainting—Sliding scale between fainting off and the slightest sensation of faintness—Sudden death during convalescence explained—Sudden death of puerperal women explained—Senile syncope and its attempted explanation—Cardialgia—Cases illustrating intense epigastric pain—Cases of singular anomalous epigastric sensations—Cases of cardialgia with reflex intercostal and diaphragmatic neuralgia—Synonymy and opinion of other authors on similar cases—Neurosis of the vagus nerve—Causes of cardialgia—Brachet's experiments—Effects of a blow on the epigastrium—The phenomena of vomiting partly attributable to concussion of the great ganglia—Spontaneous shocks to the great ganglia—Causes of cardialgia—Cardialgia common to both sexes, though most common to women at puberty, pregnancy, lactation, and cessation—Symptoms and diagnosis of cardialgia—Treatment of cardialgia—Power centralized in epigastric centre—Proved by common consent of mankind; by illustrious testimony; by the author's practice—Local epigastric treatment imperative

to allay present suffering, and to prevent mental disturbance and habits of intemperance—Constitutional treatment—Treatment of the mild forms of cardialgia by various applications: sedative plasters; morphine internally; chloroform externally; blisters—Treatment of its severe forms by ammonia; chloroform; chloric-ether; morphine externally; veratria; aconitine—Treatment of other practitioners—Oxide of bismuth and of zinc; hydrocyanate of zinc; nitrate of bismuth; acetate of lead: nux-vomica; ices—Mineral waters of Aix en Savoie—Hot baths of Aix en Savoie—Chlorosis—Its great frequency—Frequency at puberty and at cessation—Blood theory insufficient—Ganglionic theory of chlorosis—Local epigastric treatment required pp. 199—228

CHAPTER XI.

DISEASES OF THE CEREBRO-SPINAL SYSTEM AT THE CHANGE OF LIFE.

Table showing the liability to diseases of the brain at the c. of life—Liability to the same diseases after cessation—Testimony of authors as to the frequency of cerebral affections at the c. of life—Nervousness, morbid irritability—Many modes of nervousness—Evidence of nervous plethora—Nervous irritability, the ground-work of all nervous affections—Headache—Sick-headache—Case of periodical headache—Cases of apoplexy—Pseudo-narcotism illustrated by cases—Description of pseudo-narcotism at the different periods of the reproductive process—Pseudo-narcotism alternating with cardialgia—Pseudo-narcotism after cessation—Instances of pseudo-narcotism cited by numerous observers—Pomme's case—Sleep considered—Hysteria—Confusion respecting hysteria—Women at the c. of life little subject to hysterical fits—Subject to the minor forms of hysteria—Cardialgia prefacing hysterical fits—Globus hystericus alternating with cardialgia—Cases of hysteria at cessation—Epilepsy—Occurring only at puberty and at cessation—Cardialgia sometimes a prelude to epileptic fits—Case of the impossibility of speech at the c. of life—Case of fits and cutaneous eruption at the c. of life—Insanity—Comparative frequency in men and women—Period of life when insanity is most common to women—The c. of life a cause of insanity—Testimony of mental pathologists—Forms of insanity—Delirium at the c. of life—Cases in illustration—Mania caused by the c. of life—Cases in illustration—Mania of old date subsiding into dementia at cessation—Hypochondriasis and melancholia—Great frequency at the c. of life—Causes of melancholia—Case in illustration—Uncontrollable impulses and perversion of moral instincts—Their existence undeniable—Legally admitted in the puerperal state and during menstruation—Should be admitted at the c. of life—Oinomania—Impulse to drink spirits; observed during the m. periods, pregnancy, and at the c. of life—Impulse to steal; observed at puberty, pregnancy, and at the c. of life—Impulse to murder; observed during disordered menstruation, pregnancy, puerperality, lactation, and at the c. of life—Impulse to self-murder; observed at puberty, and at the c. of life—Theory of induction of cerebral affections at the c. of life—The blood theory of cerebral affections does not bear examination—Nervous theory of cerebral diseases alone trustworthy—Induction of nervousness;

headache; hysteria; epilepsy; insanity—Influence of the ganglionic system on the production of hysterical phenomena—Influence of the ganglionic system in the production of insanity—Cardialgia alternating with cerebral affections—Treatment of cerebral affections at the c. of life—Review of general principles of treatment—Utility of topical applications to the head in cerebral affections—Vinegar and water—Camphorated vinegar and water—Raspail's "Eau sedative"—Camphorated ointment—Sedative ointments—Lotions—Sponging—Affusions—Sedatives internally given—Urgency of sleep—Sedatives given by the rectum—Tonics—Prevention of cerebral affections at the c. of life pp. 229—233

CHAPTER XII.

OTHER AFFECTIONS OCCURRING AT THE CHANGE OF LIFE.

Table showing the liability of 500 women to other affections at the c. of life—Gout, most frequent at puberty and at the c. of life—Table showing the relative liability of both sexes to gout—Rheumatic affections—Great frequency at the c. of life—Causes of rheumatism—Ascites—Women most liable to dropsical affections—Breschet's case—Consumption—Aggravated sometimes—Dr. Quain's experience—Bronchitis—Hæmoptysis—Heart-disease—Epistaxis—Otorrhœa—Summary pp. 234—291

LIST OF TABLES.

TABLE I.

	PAGE
Dates of the cessation of menstruation	16

TABLE II.

Table of Marriages in Ireland for eleven years ending 1841 . . .	19
--	----

TABLE III.

Fecundity of women at various ages	19
--	----

TABLE IV.

Number of bachelors, spinsters, widowers, and widows, at different ages who were enumerated; also the numbers and proportions who were married in the year 1851	20
---	----

TABLE V.

Table of the number of marriages, and the issue from such marriages occurring in the eleven years ending 1841, for women of the ages under 17, 46 to 55, and above 55	21
---	----

TABLE VI.

Fecundity table for Sweden and Finland	21
--	----

TABLE VII.

Of 10,000 pregnant women, 436 or $43\frac{3}{5}$ per 1000 upwards of 40 years of age	22
--	----

TABLE VIII.

Ages of women dying from childbirth in the year 1852 in England and Wales	23
---	----

TABLE IX.

Date of last menstruation in the early menstruated and the late menstruated	26
---	----

TABLE X.

PAGE

Causes of the early cessation of the menstrual flow in 27 women . . .	28
---	----

TABLE XI.

Length of dodging-time	41
----------------------------------	----

TABLE XII.

Duration of the menstrual function	46
--	----

TABLE XIII.

Influence of early and late menstruation on the duration of the menstrual function	47
--	----

TABLE XIV.

Terminations of the menstrual flow in 637 women	50
---	----

TABLE XV.

Monthly occurrences after cessation, in 53 out of 500 women . . .	55
---	----

TABLE XVI.

Cutaneous exhalations in 300 out of 500 women	56
---	----

TABLE XVII.

Frequency of mucous discharges amongst 500 women at the change of life	64
--	----

TABLE XVIII.

Comparative frequency of hæmorrhages at the change of life amongst 500 women	65
--	----

TABLE XIX.

Showing the relative frequency of morbid liabilities at the change of life in 500 women	70
---	----

TABLE XX.

Comparative morbid liabilities at puberty and at cessation . . .	75
--	----

TABLE XXI.

Nature of the affections of 500 women at the change of life . . .	82
---	----

TABLE XXII.

Liability to diseases of the reproductive organs in 500 women . .	PAGE 133
---	-------------

TABLE XXIII.

Age of 2568 women who died of diseases of the sexual organs, in the Department de la Seine, from 1830 to 1835	157
--	-----

TABLE XXIV.

Liability to diseases of the gastro-intestinal organs in 500 women .	161
--	-----

TABLE XXV.

Liability of the skin to diseases in 500 women at the change of life.	174
---	-----

TABLE XXVI.

Liability to neuralgic affections in 500 women at the change of life.	182
---	-----

TABLE XXVII.

Liability to diseases of the ganglionic nervous system in 500 women at the change of life	199
--	-----

TABLE XXVIII.

Liability to cerebral diseases in 500 women at the change of life .	229
---	-----

TABLE XXIX.

Relative liability of women to insanity at different periods . . .	254
--	-----

TABLE XXX.

Liability of 500 women to some other affections at the change of life	284
---	-----

TABLE XXXI.

Relative liability to gout in both sexes at successive periods . .	285
--	-----

TABLE OF CASES.

CASE	PAGE
1. Cessation supposed to be chlorosis	32
2. Ulceration of the neck of the womb mistaken for cessation	33
3. Uterine polypus mistaken for cessation	34
4. Fibrous tumour of the womb during the change of life supposed to be pregnancy	34
5. Uterine hydatids supposed to be the change of life	35
6. Cessation mistaken for pregnancy	38
7. Ditto ditto	39
8. Cessation and spurious pregnancy mistaken for pregnancy	41
9. Embonpoint caused by early cessation	53
10. Nervous disorders mistaken for plethora at cessation	87
11. Plethora mistaken for nervous disorders at cessation	88
12. Utility of diarrhœa at cessation	92
13. Regularization of the menstrual flow after a long period of irre- gularity	134
14. Flooding from ulceration of the neck of the womb	137
15. Herpetic affection of the labia at the change of life	145
16. Ulceration of the neck of the womb at the change of life	148
17. Ulceration of the neck of the womb during the dodging-time	150
18. Jaundice caused by cessation	163
19. Repeated jaundice at cessation	163
20. Chronic diarrhœa caused by cessation	165
21. Diarrhœa aggravated by cessation	166
22. Periodical entorrhagia caused by cessation	167
23. Repeated entorrhagia and hæmoptysis caused by cessation	168
24. Habitual colics and constipation	169
25. Inflammation of the rectum caused by the change of life	171
26. Lumbo-abdominal neuralgia and remittent menstruation caused by cessation	186
27. Frequent attacks of paraplegia, with ganglionic symptoms	189
28. Permanent paraplegia	190
29. Sciatica at the change of life	192

CASE	PAGE
30. Cardialgia and reflex intercostal neuralgia, aggravated by the change of life	193
31. Frequently recurring aphonia	197
32. Cardialgia caused by the change of life	204
33. Cardialgia at the change of life	206
34. Cardialgia, with anomalous epigastric sensations, caused by the change of life	207
35. Cardialgia, with anomalous epigastric symptoms, caused by cessation	210
36. Cardialgia, with anomalous epigastric sensations, caused by cessation	211
37. Cardialgia with long-continued intense debility	212
38. Spasmodic contraction of the diaphragm and intercostal muscles, with subsequent intense debility	213
39. Spasme simultané de la glotte et du diaphragme	214
40. Periodical headache at cessation	232
41. Periodical hemicrania at cessation	233
42. Apoplectic fits caused by cessation	233
43. Hemiplegia from cerebral congestion or hæmorrhage—successive attacks at four years' interval	234
44. Periodical nervous apoplexy	237
45. Pseudo-narcotism at cessation	238
46. Pseudo-narcotism caused by the change of life	239
47. Successive fits of coma at the menstrual periods	244
48. Hysteria caused by cessation	248
49. Short and sudden fits of the impossibility of speaking after cessation	251
50. Fits, and eruptions of the face, caused by the change of life	252
51. Delirium at cessation	256
52. Delirium caused by cessation	257
53. Mania caused by cessation	258
54. Insanity occurring at the change of life	259
55. Apathy and sudden change of previous habits at c. of life	261
56. Melancholia, with suicidal tendencies, caused by cessation	262
57. Melancholia caused by cessation	264

CHAPTER I.

INTRODUCTION.

THE terms "Change of life," "Critical time," "Turn of life," in English, and "Temps critique," "Age de retour," in French, are generally understood to mean, a certain period of time, beginning with those irregularities which precede the last appearance of the menstrual flow, and ending with the recovery of health. Some German writers call this epoch "the period of sexual involution."

Variable as the duration of this time is in different women, it receives a certain degree of precision from the date of the last m. flow, which divides the c. of life into two periods. When in the course of this work I speak of *cessation*, I always mean the cessation of the m. flow, which has also been called *ménopause*. There is no medical term to designate the time included between the first indications of the failure of ovarian energy, and cessation, but women call it "the dodging time," which happily expresses the uncertain and erratic appearance of the m. flow, and I shall therefore adopt the phrase to indicate the first part of the c. of life in contradistinction to the last part, which begins at cessation, and concludes when health is permanently restored.

Although the importance of this epoch has been denied by Tissot, Dewees, Meissner, Saucerotte, and Landouzy, their opinion is not generally admitted by the profession, as is evident from many works of the last century, and from the more modern writings of Fothergill, Sir C. M. Clarke, Dr. Meigs, and Dr. G. Bedford. The last author has stated, that "in

addition to structural and malignant disorders so frequent at this period, there are many forms of eccentric nervous disturbance, various forms of temporary or permanent paralysis, and that the varieties of simple nervous irritation, without involving any peculiar lesion, are beyond calculation." German pathologists have admitted the importance of this epoch, which has, however, been chiefly recognised by the French. In addition to those whose names I shall soon have occasion to cite, Lisfranc completely adopted the popular belief in the dangers of the c. of life; and Moreau de la Sarthe says, that "the c. of life is characterised by headaches, syncope, leipothymia, general or partial spasmodic affections, hypochondriasis, the varied symptoms of hysteria, and by many forms of insanity." Brierre de Boismont, in his Prize Essay, and Dr. Dusourd, in his Practical Treatise, on Menstruation, have recognised the vast influence of the c. of life on the health of women, and I shall have frequent occasion to refer to their valuable works. I cannot equally commend the only two works expressly written on this subject, with which I am acquainted,—one by Gardanne, in 1816, entitled "*Avis aux Femmes entrant dans l'Age critique*," and the other, a treatise by Dr. Menville, published in 1840, and called "*Du Temps critique chez les Femmes*." These two works have little scientific merit, but their hazardous assertions have suggested inquiries which would not otherwise have been undertaken, and they have afforded me some valuable cases for the illustration of my subject.

Some, like Voisin, in his work on the causes of insanity, mis-state views in order more effectually to show their fallacy. They admit, with Voisin, the frequency and singularity of nervous affections at the c. of life, but deny that they can be caused by the retention of a few ounces of blood; whereas it is contended that the cessation of the m. flow and the attendant changes, whether physiological or morbid, are all induced by structural changes progressing in the ovaries,

and by their various reactions on the system. One objection claims special notice, because it is founded on an erroneous interpretation of statistics. Benoiston de Chateauneuf and Odier de Genève have proved that, if a large number of women, between the ages of 40 and 50, be compared with a similar number of men within the same periods of life, the rate of mortality will be greater among the males than the females. But those who bring forward these results, may as well say that parturition has no influence on the health of women, because it has little on their mortality; and, moreover, Finlayson has shown that, at all periods of life, more men die than women. Those who deny that the c. of life is a critical period, argue as if *critical* meant *fatal*. In medical language, crisis means a sudden change for the better or the worse, leading as often to recovery as to death. Instead of flowing on in smooth tranquillity from the cradle to the grave, the stream of life is marked by rapids, which have been called critical epochs, and during which an unusual predominance is acquired by one or by several of the organs which together form the human frame. The object of each successive critical re-adjustment of our frame, is, to ensure the greatest possible amount of health consistent with each particular period of life. This object is attained in the vast majority of cases, but the constitution only rallies after having been severely shaken for a certain period, varying according to constitution and temperament. In some, the critical changes of dentition and puberty are brought about without ill-health, but in many, these epochs are marked by a prolonged condition resembling convalescence, and often chequered by serious disease. At all critical epochs, the activity of the preponderance-seeking apparatus may be too powerful, and totally disturb the functions of the allied organs, as in hysteria, or it may be too feeble to re-act with sufficient energy on the system, as in chlorosis. Whether the energy of the preponderance-seeking power is above or below par, health is

impaired, for the system is deprived of the power of reacting justly against stimuli, whether physical or emotional. First and second dentition seem to influence both sexes in the same way. Puberty is common to both, but the impulse then given to the constitution of man is, in general, fully effective and all-sufficient to ensure its permanent activity until extreme old age; whereas, in woman, this crisis is very liable to be perverted or delayed, and even when puberty has been effectually established, the health of woman is dependent on regular oscillations of vital power. Matrimony, pregnancy, parturition, lactation, are all critical periods, curing some complaints, and giving greater activity to others; and when, after having lasted thirty-two years, the action of the reproductive organs is withdrawn from the system, prolonged ill-health is the frequent result. Then arise a series of beautiful critical movements, the object of which is to endow woman with a greater degree of strength than she had previously enjoyed; but if cancerous seeds of destruction have been slumbering for years in the system, the c. of life will, in general, prove fatal. Thus Dionis of old, and Madame Boivin, Dupuytren, Tanchou in our time, have proved, that the greatest proportion of cancerous affections and polypi of the womb are complained of at that period, and it is the same with cancer of the breast. If the term critical be taken in its medical sense as indicating a period in which the system finds relief by critical discharges, what time of life is so rife with critical phenomena! The floodings, leucorrhœa, diarrhœa, and perspirations, are eminently critical, and restore to health the vast majority of women. The frequency, however, of intense suffering at the c. of life is proved by carefully noting down what has occurred to women at this period. B. de Boismont found that out of 107 women, 80 suffered considerably; and out of 539, I have only met with 39 who have not suffered. The larger proportion of suffering I detected may depend upon my having included not only the floodings and

the polypi, but also, what I have called the ordinary critical symptoms of the c. of life, whose value has not been sufficiently insisted upon by previous observers.

This volume will forcibly show the evil effects of the c. of life; its sanative influence cannot be so easily depicted, as patients consult the profession for actual disease, not for that which has been cured. I have, however, learned from women in whom the m. flow had definitively ceased, that, in 24 cases, piles had disappeared; in 8 others, they had ceased to bleed. Twelve women who had been very liable to inflammation of the womb were cured by the c. of life, 26 others were no longer troubled by leucorrhœa, and I am convinced that many suffer for years from unrecognised uterine affections, which are at last completely cured by the c. of life. Prolapsus of the womb was cured in 3 cases; 15 women no longer suffered from uterine deviations, though they still existed. In 4 cases varicose veins had gone down; 53 women spoke of the great additional strength obtained, and of the abatement of their liability to dyspepsia. Cardialgic affections then often lose their gravity and become less frequent, and the same remark applies to almost all cerebro-spinal affections, even to the most formidable, for Esquirol has seen many women recover their reason at the cessation of menstruation. Reporting on the Female Lunatics at Colney Hatch, Dr. Davey says:—"There are many females between the ages of forty and fifty, whose recoveries may be expected when the uterus shall have fairly resumed its original inaction, and when also the brain shall have lost a fertile source of irritation and disease. Unfortunately it happens that the poorer classes are much too unmindful of the health of women at the critical periods of life, and pay too little attention to the means whereby the uterus may be assisted in its efforts to preserve its due influence on the human economy; and therefore is it, in a very great measure, that insanity is of so frequent an occurrence among women."

I have dwelt on this subject in another work,* contending that in many of the worst cases, there was a prospect of the mental faculties being restored at the c. of life; and taking up the suggestion, Dr. Hood has admirably pleaded the cause of many most unfortunate women confined for life in Bedlam for infanticide, or other great crimes, committed during a temporary attack of puerperal mania, rightly observing that,† though there may be danger in restoring them to society while menstruation renders impregnation possible, and therefore another attack also of puerperal mania, there can be none in releasing them some time after the c. of life. B. de Boismont told me that this question had been discussed at the Psychological Society of Paris; and Dr. Ferrus, Inspector-General of Prisons, with all who were well informed respecting criminal lunatics, entertaining the same opinion, the plan was successfully tried, for several women had been restored to society for 10 or 12 years, without a relapse having occurred.

The critical nature of a period is shown by its effects on the health in ensuing years, thus puberty is not only the crisis of most of the complaints of the preceding epochs, but it governs the health of the subsequent period for good or evil; in like manner, the c. of life not only terminates critically many complaints of the preceding years, but it has a decisive action on the state of health during the whole subsequent period of life, so much so, that from the manner in which this crisis is accomplished, I believe it possible to predict whether in after life the health will be good or bad. Fifty-three women, in whom there had been no m. flow for 5 years, and whose health had been habitually bad, spoke of their great additional strength of constitution, and this result may be taken as a rule which harmonises with the popular belief.

* "Elements of Health and Principles of Female Hygiene," by E. J. Tilt, M.D. Bohn, York-street, Covent-garden, London.

† "Criminal Lunacy," by W. C. Hood, M.D. Churchill, New Burlington-street.

It is shown by the greater longevity of women, by their being less liable to sudden death, and by their general immunity from disease, for the little said about women in works on diseases of old age is a strong proof of the good health with which they are generally blest during the last stage of existence.

The few works written on the subject of this inquiry led me to believe that they would not afford me much assistance. In treatises on diseases of women, I have found very little to help me, because the critical time and its infirmities are generally dismissed with half a page. In none of our classical works have I found diseases of the c. of life brought within the range of the laws of general pathology, and no general principles of treatment are laid down for the guidance of others. Perhaps the deficiencies of medical literature are corrected in the daily routine of practice, though some eminent practitioners are of a different opinion. They do not pretend that nothing is done to relieve the sufferings of women, but not enough, that a placebo is given where systematic treatment is required. Thus, Sir C. M. Clarke, commenting on the diseases of this epoch, states that "It is not unusual with women to refer all their extraordinary sensations to 'the c. of life,' and to consider that, when they have thus accounted for their diseases, they have at the same time cured them ; and in this, most medical men, judging at least from their practice, seem to be of the same opinion."

Dr. Meigs likewise says, "In America, too little regard is paid to the dangers of the crisis ; and when the threatening consequences of mismanagement or misapprehension have become startling, those fatal mutations are attributed to some trivial cause, and the victim passes away to the sound of the passing bell, and no increase of knowledge, acquired by such a mournful experience, stands in the way of the next victim to a management as unwise and as thoughtless."

"The complaints," adds Dr. Meigs, "which women at the

c. of life often make, are frequently hushed with the unsatisfactory reply that such complaints are owing to the c. of life, and are likely to cease whenever the c. shall become complete. A physician has no moral right, by his opinion, to put to sleep the anxieties of his patient, and to save himself the trouble of thinking by so concise and unphilosophical a mode of proceeding. Whenever, therefore, a female, at this period, which is universally admitted to be a critical and dangerous time for her, comes to complain of symptoms referable to some morbid condition of the reproductive tissues, it is clearly our duty to give a considerate attention to her case, and not to dismiss her until our judgment should be fully satisfied as to the therapeutical or hygienical indications of the case."

The present volume illustrates the period comprised between the 40th and the 55th year, and in addition to other data, it embodies the tabulated estimates of the symptoms and diseases observed among 500 women, who were at the c. of life, or who had passed it. The facts I have collected, the pathological views to which I have been led, and the plans of treatment they have suggested to me, having borne the test of experience, I venture now to place them before the profession.

Physiology and pathology are twin-born, their growth and comparative state of advancement generally coincide. The little knowledge of diseases of the c. of life seems principally owing to the neglect in which physiologists have left many questions relating to this epoch, and though it may strike some that I have given unnecessary space to the physiology of the c. of life, I am convinced that a better understanding of this critical period is not to be attained without an unusually patient investigation of all that relates to its physiology.

CHAPTER II.

PHYSIOLOGY OF THE CHANGE OF LIFE.

THE reproductive organs of women induce a long series of critical changes, the last of which is termed the c. of life. To understand this crisis, it is necessary to study its phenomena in relation to puberty and to the whole function of menstruation, for if hitherto some of its physiological phenomena have been unnoticed or imperfectly understood, it is because physiologists have not sufficiently considered their relation to the other stages of the reproductive function. If pathologists are at a loss how to treat the continually recurring infirmities of the c. of life, it is because they have not compared them with the diseases frequently met with at puberty. To explain how the c. of life so completely modifies the constitution of woman, leading either to improved health or to diseased action, I am obliged rapidly to review the reproductive function, referring all who wish for further details to my Second Edition of "Diseases of Women."

About the age of 13, in the latitude of Great Britain, the constitution of girls is seen to change. Those who are delicate become more so; those who are in rude health suffer slightly. There is a frequent recurrence of pains in the back, in the lower limbs, and in the abdomen; there is a tendency to headache, nervous irritability, and fitfulness of temper. After this has lasted for 12 or 18 months, a small quantity of blood is perspired from the womb, and the nervous symptoms abate, but they generally return again for a few months, until the recurrence every 28 days of the m. flow, with a certain amount of nervous irritability, pain and headache, has become a con-

firmed habit. In the mean time the body attains to its full proportions; the pelvis acquires sufficient size to permit the passage of a child; the breasts swell to give it food; there is a general improvement in health, and woman soon attains to her highest point of physical perfection. Unless interrupted by pregnancy and lactation the m. flow recurs every month for about 32 years, then it becomes irregular as at puberty, and after being so for about 2 years it ceases altogether. As at puberty, so at the c. of life, women are habitually more irritable, more sensitive, more subject to headaches and to lowness of spirits. As at puberty, so at the c. of life, a renewal of strength generally follows. Such is the menstrual function under favourable circumstances, but there is a reverse to every medal. Instead of recognising puberty by increased health, how often do we infer it from the sickly look, the undeveloped form, the chlorotic cast of countenance. Instead of slight pains in the back, limbs, and hypogastric regions, the pains may be excruciating and long continued, leading to, what has been called, spinal irritation and hysterical contraction of the limbs. Headache may incapacitate the patient for all exertion; her mental faculties may seem lost in a state of drowsy forgetfulness; nervous irritability may grow to the proportion of hysteria under its worst forms; and instead of fitfulness of temper and waywardness of disposition, she may become morose and mischievous. In fact, the conduct of a girl at puberty sometimes betrays such a dereliction of all principle, that moral insanity is not too strong a term to characterise it. When the long-expected m. flow at last appears, it does not always bring health. Its return may be too long delayed, or should it come regularly, instead of being a bearable infirmity, it may be attended by so much abdominal pain and nervous symptoms as to constitute a disease; or, there may be something amiss in the reaction of the reproductive organs on the nervous system, so that the m. flow may return every 15 or 21 instead of 28 days.

The c. of life has also its reversed side. Instead of being a period marked by slight infirmities, it may be characterised by very complicated morbid phenomena. There may be great debility and chlorosis as at puberty; the abdominal pains may be very severe; headaches, frequent and agonizing; instead of a slight haziness of the mental faculties there may be continued drowsiness and stupor; if hysterical convulsions are less frequent than at puberty, the globus hystericus and the minor manifestations of hysteria are very frequent, and insanity oftener occurs. If unrelieved by repeated critical discharges, such as flooding, leucorrhœa, diarrhœa, or perspiration, these complicated nervous symptoms may continue for years, but are even then amenable to proper treatment, by which their occurrence might have been effectually prevented.

Puberty and the c. of life are caused by anatomical changes, the one by ovarian *evolution*, the other by ovarian *involution*. At puberty the ovaries increase in size, become more vascular, and let fall ovula. At the c. of life ovula are more and more scantily secreted. Little is known of the anatomical condition of the ovaries during the c. of life, and those who have the advantage of hospital practice would do well to ascertain whether they present any particular appearance in women dying at that epoch. After cessation the stroma becomes atrophied, and as it can no longer distend the thick ovarian envelope, it wrinkles up in various directions, thus resembling a peach-stone. Later in life it is more and more atrophied, and I have often found it not larger than a horse-bean, the place of the ovary being sometimes only indicated by a small fibro-cellular substance. This ovarian atrophy determines corresponding changes in the Fallopian tubes, which contract and are sometimes obliterated; it also causes the womb to become atrophied, particularly its neck, which is thinner and shorter; and Virchow has noted the closing of the internal os uteri in old age, the vagina often becoming narrower and shorter. The mammary glands are likewise atrophied

after cessation, whereas during the c. of life they are often congested, or otherwise diseased.

It will ever be a matter of surprise how so many phenomena of health and symptoms of disease can be determined by two little oval bodies, whose structure does not appear to be complicated, but as the fact is unquestionable, it is well worth attempting to explain the varied manner in which the ovaries influence the system in health and disease. With whatever power these organs may be endowed, they chiefly influence the various parts of the body through the medium of its nerves. The ovaries having both ganglionic and cerebro-spinal nerves, they can re-act on both the ganglionic nerves and their centre, and on the cerebro-spinal nerves and their central organs. Whether the ganglionic be considered an independent system of nerves or an offshoot of the cerebro-spinal nervous system, all agree that it follows every capillary to its minutest ramifications, and governs the nutrition of all and every part of our frame. It is known that each important organ of nutritive life is supplied with a ganglionic plexus of nerves and ganglia, that they all communicate together, and with a larger plexus and more voluminous ganglia, situated at the pit of the stomach, called the solar plexus and ganglia ; but before these foci of nervous matter had been noticed, medical men had observed that the abdominal organs were endowed with a variable amount of nervous energy, and Galen called the epigastric region, the lever of the forces by which the animal economy is moved. Without entering into details, which will be found in my work on "Diseases of Women," I shall merely state, that while sensation and motion are intimately dependent on the cerebro-spinal system, nutrition is dependent on the ganglionic, and that in the central ganglia, situated in the epigastric region, there is a condensation of ganglionic nervous power which gives and receives from each organ a variable impetus. Many pathological facts, which I shall set in order, are not to be accounted for without taking

it for granted that the solar ganglia are an important centre of nervous power, capable of re-acting on the various parts of the body by some subtle invisible fluid analogous to electricity, which I shall speak of as ganglionic nervous fluid or aura. Reasoning, then, from the facts to which I have alluded, it seems that the human frame is so constructed, that its various component organs can re-act upon each other in the way most conducive to health, until the age of puberty. At that time health often fails, and the whole system languishes, unless the reproductive organs come into full activity. From puberty until the c. of life, the health of woman cannot be maintained without an appropriate amount of ovarian influence. If this nervous stimulus, which I shall call ovarian aura for want of a better name, re-act healthily, it augments the power of the epigastric nervous centre, causes the functions of nutrition to be performed with increased energy, and gives an instinctive consciousness of strength. If, on the contrary, this ovarian aura be insufficient in quantity or defective in quality, it will not act with sufficient force on the epigastric centre of ganglionic action, and uneasy sensations will be felt at the pit of the stomach,—feelings of sinking and faintness, fainting being often induced. Sometimes there is pain, or anomalous sensations; sometimes a state of defective nutrition which is called chlorosis, a disease doubtless most frequently met with at puberty, but also of frequent occurrence during pregnancy and lactation, and from which the c. of life is surely not exempt. If the ovarian stimulus be insufficient, it will retard the first appearance of menstruation, cause the flow to come irregularly, or for a time suspend its recurrence. If the ovarian stimulus be too strong or defective, it re-acts with morbid energy on the abdominal viscera, each endowed like the generative viscera with special ganglionic plexus and ganglia. It is not surprising that organs similarly endowed should fraternise, and that whether at each m. period, at puberty, or at the c. of life, undue ovarian influence should

give rise to more or less nausea and sickness, or to a perverted appetite ; that it should cause the intestinal canal to secrete more gas or mucus than usual, thus determining diarrhoea ; that it should force the lower part of the bowel to perspire blood ; that it should increase the amount of water passed by the kidneys, that of sediments contained in the urine, or that of saline water perspired by the skin. If at each m. epoch, or at the beginning or cessation of the reproductive functions, the ovarian stimulus be too abundant or too energetic for the allied abdominal organs, then may arise painful or strange sensations in the ovarian regions, and a sense of precordial oppression, real pain, or hysterical phenomena, may be felt at the pharynx. At each m. crisis, during puberty or the c. of life, the spinal and hypogastric pains are caused by the passage of the ovarian influence through the splanchnic and the spinal nerves. Some amount of pain is perfectly consistent with the healthy performance of the m. crisis, with its inauguration at puberty, and with its demise at the c. of life, for when the ovarian influence is defective, as in chlorosis, there is often no pain ; but its amount frequently becomes morbid owing to the too strong action of the ovarian aura on the spinal nerves. The too abundant or too powerful ovarian action, after determining pain in the ovarian regions, causes pain, oppression, or uneasy sensations in the epigastric region, and sometimes globus hystericus ; but its area of action is not confined to ganglionic nerves, or to nerves intimately blended with them, for through the medium of spinal nerves the ovarian stimulus acts on the spinal cord, and so develops its energy, that, whether at the monthly ovarian crisis, at puberty, or at the c. of life, there arises frequently a tetanoid condition of the system, a state of nervous irritability, shown by an impossibility of repose, by a continued state of restlessness, by the fidgets, by what a French writer has called "*impatiences organiques*," or by hysterical convulsions. Or there may be numbness of some part of the skin, local

anæsthesia, local paralysis, called hysterical if affecting the joints of young women, paraplegia or hemiplegia. The strength of the ovarian nîsus, or the relative weakness of the nervous system, may be inferred from the fact of death occurring in the midst of hysterical convulsions, without any lesion being detected in the cerebro-spinal system. The ovarian influence reaches the ganglionic centre, which is in constant communication with the brain by the pneumo-gastric nerves, so that at each m. epoch, at puberty, or at the c. of life, its undue influence is shown in some by distressing headaches, continued fretfulness, peevishness, and capriciousness, called temper, by a temporary perversion of moral feeling, or by moral insanity. In others, excessive ovarian action is shown by high spirits or excitement, by delirium, then called hysterical, and very frequently there is more or less of what I have termed pseudo-narcotism. The disturbance, the cloud is no longer on the moral instincts but on the mental faculties, which are for a time in a state of misty haziness, the brain feels muddled, memory is faithless, there is an unconquerable desire to sleep during the day, even when the night has been passed in repose. This state of the nervous system has in some cases amounted to coma and lethargy.

Having thus briefly sketched the varied phenomena which attend on the successive stages of the reproductive function, I am able to open the investigation of its terminal crisis.

To ascertain the date of cessation is a point of great importance, for it often marks the climax of much previous and subsequent suffering. In the following table I have placed, side by side, the results obtained in Paris by B. de Boismont, and in London by Dr. Guy and myself. It will be seen that although the date of cessation varies from the 21st to the 61st year, yet it may generally be expected from 40 to 50. Thus, out of B. de Boismont's 181 cases, in 114, cessation took place between 40 and 50 inclusively; and in 330 of my 501 cases, cessation occurred during the same decennial period.

TABLE I.

Dates of the CESSATION of Menstruation.

Age at Cessation.	Cases collected by B. de Boismont.	Cases collected by Dr. Guy.	Cases collected by Dr. Tilt.	Total cases.
21st year	2	...	...	2
24 "	1	...	...	1
26 "	1	...	...	1
27 "	1	1	1	3
28 "	1	1	...	2
29 "	1	...	...	1
30 "	...	1	10	11
31 "	3	...	1	4
32 "	2	...	4	6
33 "	...	2	1	3
34 "	4	1	2	7
35 "	6	3	6	15
36 "	7	1	2	10
37 "	4	5	7	16
38 "	7	5	6	18
39 "	1	7	10	18
40 "	18	33	42	93
41 "	10	24	17	51
42 "	7	24	26	57
43 "	4	23	24	51
44 "	13	24	23	60
45 "	13	45	49	107
46 "	9	34	31	74
47 "	13	25	42	80
48 "	8	38	37	83
49 "	7	25	32	64
50 "	12	37	49	98
51 "	4	14	27	45
52 "	8	13	16	37
53 "	2	8	9	19
54 "	5	2	7	14
55 "	2	1	6	9
56 "	2	2	4	8
57 "	2	1	2	5
58 "	...	...	4	4
59 "	...	...	1	1
60 "	1	...	1	2
61 "	...	...	2	2
Total	181	400	501	1082
<i>Average date of last Menstruation.</i>				
Years	44.0	45.8	46.1	45.7

It will be seen that the average date of cessation is higher in proportion to the amount of cases, and that the average of the 1082 cases is 45 years 9 months. The 46th year of female life is then that in which cessation may be expected, and that after which fecundity is improbable in temperate climates. This is a question of great interest in a medico-legal point of view, and particularly so when expectancies depend upon the possibility of a woman being fruitful.

Such is the law, but there are frequent exceptions, cessation taking place in some women long after or before the usual time. The possible limits of the m. function may be gathered from well-authenticated cases of late menstruation and late fecundity, and from tables of fecundity and mortality. That the possibility of fecundity can, in general, be estimated by the persistence of menstruation is confirmed by many trustworthy observers, living or dead. Thus, Mr. Robertson, of Manchester, observes:—"I am able to speak confidently concerning 3 women who had children at advanced ages,—one in her 50th year, another in her 51st, and the third in her 53rd year. In each of these instances the menstrea continued up to the period of conception." My colleague, Mr. Davies, at the Farringdon Dispensary, has confined a lady of her 13th child at the age of 53, after which there was no m. flow; and Dr. Davies, of Hertford, communicated to the *Medical Gazette*, Vol. XXXIX., the case of a woman who was 55 when her last child was born, and who menstruated up to conception. Twice have I known the m. flow to continue its regular appearance up to the 61st year, in ladies of a remarkably strong constitution: and Mr. Robertson cites a case where menstruation ceased for 12 months about the 50th year, when it again became regular and continued so until the 70th.

Lamotte relates the case of a woman who had 32 children, and menstruated quite regularly up to her 62nd year. Auber attended two women, one 68 and the other 80, who for the last few years had again menstruated. The flow came re-

gularly, lasted 3 or 4 days, and during that time they were more nervous than usual, the organs of sensation being unusually dull in apprehending their appropriate stimuli. Saxonia states that a nun, in whom the m. flow ceased at the usual time, experienced its return when her 100th year was attained, and it continued regular until her death, 3 years after. Rush mentions the case of a woman who was confined for the last time in her 60th year, menstruated until her 80th, and died in her 100th year.

The medical advisers to insurance offices should know that menstruation may cease at the age of 45, and then reappear, continuing regularly for a few months or for years with the chance of fecundity. A case of this kind has occurred in my own practice. The lady ceased at 45, menstruation was absent for two years, then returned with regularity, and was followed by pregnancy at 50. Cornelia was confined of Valerius Saturnius in her 62nd year. Cederschjald met with an instance of a woman bearing a child at 53, and menstruation still continued. Haller records two cases in which women at 63 and 70 respectively bore children. My old friend Capuron cites the case of a lady, who after the m. flow had been absent for several years, saw it return at 65. Three months after she miscarried, the foetus being well formed.

Meissner states that a woman who first menstruated at 20, bore her first child at 47, and the last of 7 other children at 60. Menstruation ceased and reappeared at 75, continuing until 98, then stopped for 5 years, again to return at the advanced age of 104. In 1812 she was still alive.

I might increase the number of such cases, which are not instances of irregular flooding, but of the m. flow, occurring regularly with its attendant symptoms, and often followed by pregnancy. These facts contradict the opinion of those who assert that when the m. flow has once fairly ceased between 40 and 50, any blood that may afterwards flow from the womb must depend upon some undetected ulceration.

In most of the cases of late menstruation that have come under my notice, I have carefully sought for ulceration of, and in, the neck of the womb, without being able to detect it.

Civilization has attained to such an artificial state, that the date of marriage no longer indicates the possibility of procreation. Table IV., extracted from the 14th Annual Report of the Registrar-General, shows the large number of women who marry after the demise of the reproductive power. The Irish census gives similar results :—

TABLE II.

Marriage Table for Ireland, 11 Years ending 1841.

MALES.					FEMALES.				
Age.	No. of Weddings.	To 10,000 population.	To a maximum 100.	Maxim. age, 31·84	No. of Weddings.	To 10,000 population.	To a maximum 100.	Maxim. age, 26·34	
Under 17	1,516	80·81	·92		14,941	831·11	13·3		
17—25	191,677	3021·23	34·4		305,312	4977·90	79·26		
26—35	193,639	8335·63	94·8		98,195	4981·20	79·32		
36—45	33,830	4115·57	46·7		8,279	701·61	11·1		
46—55	5,836	1128·82	12·7		1,131	101·61	1·5		
Above 55	1,579	167·76	1·6		219	10·63	·16		

The following table, extracted from the Registrar General's Report, shows that many more women than is supposed bear children late in life :—

TABLE III.

Fecundity of Women at various Ages.

Ages of Mothers when their Children were born . . .	Under 20	20—25	25—30	30—35	35—40	40—45	45—50	Above 50	Total.
Children born from 1831 to 1835 . . .	8301	70,924	121,781	126,808	98,950	49,660	7022	167	483,613

Thus, out of 483,613 women who became mothers from under 20 to above 50, no less than 7022 bore children from their 45th to their 50th year, and 167 were mothers after having passed their 50th year; that is to say, that 7189

TABLE IV.

Number of Bachelors, Spinsters, Widowers, and Widows at different Ages who were enumerated; also the Numbers and Proportions who were Married in the Year 1851.

AGES.	Numbers enumerated in 1851.				Estimated numbers married in 1851 (see note).				Proportion married to 100 living.			
	Bachelors.	Spinsters.	Widowers.	Widows.	Bachelors.	Spinsters.	Widowers.	Widows.	Bachelors.	Spinsters.	Widowers.	Widows.
Total.	2,297,759	2,306,009	333,926	661,894	132,643	140,331	21,563	13,875	5·773	6·085	6·457	2·096
15—	869,325	861,453	76	260	4,035	18,807	—	13	·464	2·183	—	5·000
20—	638,842	598,732	2,168	4,326	71,049	75,872	667	850	11·209	12·672	30·766	19·649
25—	308,863	306,607	8,290	14,303	37,647	29,136	2,967	2,132	12·209	9·503	35·790	14·906
30—	159,956	163,804	14,249	26,328	12,558	9,857	4,079	3,057	7·851	6·025	28·627	11·611
35—	95,889	99,443	18,584	34,839	4,371	3,759	3,775	2,527	4·558	3·780	20·313	7·253
40—	67,380	71,520	24,576	49,207	1,885	1,789	3,459	2,132	2·798	2·501	14·075	4·338
45—	47,522	51,044	27,172	54,868	688	724	2,407	1,466	1·448	1·418	8·838	2·672
50—	37,155	43,102	34,057	70,033	262	258	1,945	909	·705	·599	5·711	1·298
55—	25,815	30,823	32,586	67,181	90	96	1,043	491	·349	·311	3·201	·731
60—	21,649	29,559	41,725	88,283	33	25	728	213	·152	·085	1·745	·241
65—	13,065	19,319	37,567	77,698	19	5	324	53	·146	·026	·862	·068
70—	9,629	15,217	39,284	74,625	3	—	124	19	·031	—	·316	·025
75—	5,068	8,837	28,139	52,527	3	—	28	8	·059	—	·100	·015
80 & up.	3,111	6,758	25,453	47,416	—	3	17	5	—	·044	·067	·011

Note.—Of the total number of marriages solemnized in 1851, the ages of the males and females were stated only of the following numbers,—viz., 48,555 bachelors, 51,141 spinsters, 7792 widowers, and 5206 widows. In this Table, these numbers have been proportionally raised to the total numbers married under these respective headings.

women out of 483,613, or 1 in about 67, bore children after the time when the m. flow usually ceases.

The Irish fecundity table to which Dr. Routh refers in a very interesting paper on procreative power—*London Journal of Medicine*, 1850—is equally conclusive:—

TABLE V.

Table of the Number of Marriages, and the Issue from such Marriages, occurring in the Eleven Years ending 1841, for Women of the Ages under 17, 46-55, and above 55.

Age of Husband.	Age of Wife.	No. of Marriages.	Prop. of Children to 100 marriages.	Age of Wife.	No. of Marriages.	Prop. of Children to 100 marriages.	Age of Wife.	No. of Marriages.	Prop. to 100 Marriages.
Under 17	Under 17.	661	256	46 to 55.	1	0	Above 55.	1	0
17—25		9,847	262		35	51		3	0
26—35		4,066	252		145	51		12	0
36—45		313	248		227	39		15	20
46—55		36	205		428	22		52	10
Above 55		18	128		295	10		136	12
Total...		14,947	257		1,131	26		219	12

Thus it appears that in 10 years, out of 427,977 women married in Ireland at different ages, there were no less than 1131 married between their 46th and 55th year, and 219 were married after their 55th year. Those who wish for further evidence of the fact under discussion may consult the Registrar-General's 17th Report, now in the press.

The following table shows similar results in a northern latitude:—

TABLE VI.

Fecundity Table for Sweden and Finland.

Age.	Annual Average Number of Deliveries.	Proportion to 100 Females living.
15 to 20	3,298	2.48
20 — 25	16,507	12.56
25 — 30	26,329	21.64
30 — 35	25,618	22.82
35 — 40	18,093	18.32
40 — 45	8,518	9.54
45 — 50	1,694	2.28
50 — 55	39	.05

In the paper referred to, Dr. Routh has published corresponding results derived from two London institutions. At the St. Pancras General Dispensary, out of 1527 women confined, the age of 12 varied from 46 to 57. Two of the 12 were 55 and one 57. At the Westminster General Dispensary, out of 2509 women confined, the age of 6 varied from 56 to 49. Dr. Taylor—*Medical Jurisprudence*, p. 568—has given the following table, drawn up by Neverman :—

TABLE VII.

Of 10,000 pregnant women, 436 or $43\frac{3}{5}$ per 1000 were upwards of 40 years of age. Of these 436 women,

101 or $10\frac{1}{10}$ per 1000 were in their 41st year.

113 or $11\frac{3}{10}$	“	“	42nd “
70 or 7	“	“	43rd “
58 or $5\frac{4}{5}$	“	“	44th “
43 or $4\frac{3}{10}$	“	“	45th “
12 or $1\frac{1}{5}$	“	“	46th “
13 or $1\frac{3}{10}$	“	“	47th “
8 or $\frac{4}{5}$	“	“	48th “
6 or $\frac{3}{5}$	“	“	49th “
9 or $\frac{9}{10}$	“	“	50th “
1 or $\frac{1}{10}$	“	“	52nd “
1 or $\frac{1}{10}$	“	“	53rd “
1 or $\frac{1}{10}$	“	“	54th “

Here it will be observed how suddenly the number of pregnancies diminishes after the age of 45.

I inquired whether women who had borne children late in life had married late, but could obtain no answer at the Registrar-General's office. Judging, however, from many of the cases just recorded, fecundity was as remarkable as the protraction of the m. flow ; and if so many women bore children after 45, it was not because they had married late, but because their ovaria had been endowed with unusual vitality.

This view is supported by the experience of Mr. Robertson, who states "that in 11 women, 3 had a child each in the 49th year, and the other 8 had each a child above that age; I ascertained that the aggregate number of their children was 114—i. e., 10 and a fraction for each woman, a fact indicating that they must have married rather early in life. Concerning the age of marriage in 2 out of the 11, I possess some little information; the one married at 18, had 2 children before she was 21, and brought forth her 14th child in her 50th year; the other was married from a boarding-school at a very early age. In her 53rd year she was delivered of her 12th child."

Protracted menstruation is proved by the following statement:—

TABLE VIII.

Ages of Women dying from Childbirth in the Year 1852 in England and Wales.

Ages.				Deaths from	
				Metria.	Childbirth.
15 and under	20	...	...	50	80
20	25	...	...	210	340
25	30	...	...	231	461
30	35	...	...	217	486
35	40	...	..	173	544
40	45	...	...	78	313
45	50	....	...	13	51
All Ages				972	2275

I have insisted on the frequency of pregnancy late in life, because grievous mistakes have often followed the practitioner's persuasion of its impossibility. To my knowledge, pregnancy late in life has been mistaken in three cases for an ovarian tumour, and was treated by iodine, mercurials, and tight-bandaging, which caused the death of the child, and greatly compromised the mother's health. Whether there be truth in the popular belief, that parturition is more dangerous

to the mother when it occurs late in life, I have not been able to ascertain.

What are the causes of protracted menstruation? Many of the preceding cases enable me to affirm that the ovaries may become paralysed before the time usually fixed for their atrophy, and that they may resume their wonted energy by a spontaneous effort, by the shock of sudden grief, or through some impulse given to the ganglionic system, by fevers and visceral diseases. At the same time it is obvious, that a sanguineous discharge from the womb must not be accounted menstrual, unless it be repeated regularly; for in advanced age fever may cause uterine hæmorrhage, as it may an epistaxis. For instance, Gardanne gives a case, wherein an abundant m. flow is said to have come, for the last time, after 6 months' stoppage, to a woman 49 years of age, during a bilious fever, in which emeto-cathartics were given. This might have been uterine hæmorrhage: so might it have been in Bohnius' case, where the ingress of fever is stated to have brought on a return of menstruation in a woman 80 years old. The same remark applies to a statement lately made by Mr. Wood, of the return of the m. flow in a lady aged 69, in consequence of the death of a favourite son; and at 60, to her sister, in consequence of a fright. These cases are open to doubt, unless the critical discharge returns regularly for a certain time, as in the following instance published by Mr. A. Brown—*London Medical Gazette*, Vol. XXI.—A woman had not menstruated since her 42nd year, when, after suffering 7 months from swelling of the liver and pains in the loins, she was critically relieved in her 56th year, by the sudden appearance of menstruation, which was repeated 10 times, and perfectly re-established her health. Protracted menstruation is, however, more frequently caused by affections of the womb than of any other organ. Fibrous tumours of the womb often retard the date of cessation. Uterine polypi have the same effect, and in some of Dupuytren's

cases of uterine polypi the m. flow lasted until the 49th or 56th year; but the sanguineous discharge should not be considered menstrual unless it occurs periodically, or with periodical paroxysms. I have sometimes found that ulceration of the neck of the womb coincides with an unusually protracted m. flow, and as the earlier observers had not the means of recognising this disease, their cases of late cessation are, to a certain extent, invalidated.

With Dr. Dusourd, I consider the ovarian activity to be commensurate with constitutional vigour, inasmuch as all those in whom the m. flow was unusually prolonged, were remarkable for their strength and good health. Neither should the philosopher lose sight of the connexion between the unusual prolongation of ovarian life and longevity remarkable in several of the preceding cases, and I believe that life is longest in those women in whom puberty is retarded, as it is proved to be the longest in cold countries where the average date of first menstruation is delayed. Alexander von Humboldt has arrived at the same opinion, founding it upon extensive and comparative study of the numerous races which inhabit South America.

When the ovarian nismus is healthily manifested, it indicates a corresponding healthy activity of the other functions of vegetative life; and when it is unusually prolonged, it implies a corresponding power of endurance of vegetative life, on which depends longevity.

Another means of judging whether cessation will be retarded is the circumstance of its having first appeared later than usual, notwithstanding the contrary assertions of Burdach and Mende. Now, in some of the cases of very prolonged m. flow, it first appeared as late as 20 and 22; but to ascertain the truth, I compared 33 women, who had first menstruated from 8 to 11, with 37 women, in whom menstruation had been retarded from the 18th to the 22nd year. The results are shown in the following table:—

TABLE IX.

*Date of last Menstruation in the EARLY Menstruated and the
LATE Menstruated.*

Years of Age at Cessation.	Cases of early Menstruation at from 8 to 11.	Cases of late Menstruation at from 18 to 22.
30	2	1
31	1	
34	1	
35	1	
37		1
38	1	
39	2	1
40	2	3
41	1	1
42	2	1
44	2	2
45	3	3
46	1	7
47	2	2
48	1	3
49	3	3
50	4	4
51	1	2
52	1	
55	1	1
58	1	2
Total	33	37
<i>Average Date of Cessation.</i>		
Years.	44.6	46.8

Two years and three months is a remarkable difference between the two averages. The average of the late menstruated is a year later than that derived from the 1082.

If I were consulted respecting the chance of issue from a lady aged 45, I should ask when menstruation first appeared, and if it were 18 or 19, I should infer the prolongation of the m. flow beyond the average time, which would of course increase the chance of loss to be sustained by an insurance office. With regard to the structural conditions, whereby, in a certain number of women, the m. flow and fecundity

are protracted to such an advanced age, it is fair to suppose that they were anatomically constituted like a lady in whom menstruation only became regular at the last years of her life, and who died at 72, and in whom Drs. Bouvier and B. de Boismont found the ovaries and the whole of the generative system turgid, as in girls of 15 to 18 years of age; instead of being atrophied as is the case in women advanced in life.

I now come to the causes of early cessation, or premature ovarian paralysis. As human life is often cut short long before the time specified by the Psalmist, so the reproductive force with which the ovaries are endowed may be extinguished long before the average date of 45. On careful consideration of 49 cases, wherein menstruation ceased suddenly from the 27th and 39th year inclusively, I was unable to detect anything peculiar to their constitution with the exception of 8, whose strength was below the average. None of the 49 had married too early or were addicted to prostitution, which have been erroneously given as causes of early cessation by Meissner. They were not unusually subject to profuse menstruation, as asserted by Gardanne.

They were not more than usually affected with disease of the reproductive organs, as stated by Meissner, neither did the diminished extent of the menstrual function indicate less reproductive power, for the average amount of children was a little more than 3 in 26 out of the 49 women who were married.

If women of the same family sometimes cease to menstruate at the same age, it may be merely a coincidence. With regard to the influence of race, climate, country or town life, and civilization, upon the cessation of menstruation, there are the contradictory assertions of those who speculate upon too small a number of facts.

Out of my 49 cases, the m. flow was suppressed from the 27th to the 39th year in 27, and I found sufficient cause

to explain the fact, as will be seen from the following table:—

TABLE X.

Causes of early Cessation in 27 Women.

Nature of Cause.	No. of Women.
Parturition and lactation	3
Miscarriage.	1
A fall on the sacrum during m. flow	2
Suppression of m. flow from frost or intense cold	2
Bleeding from the arm at a m. period . . .	1
Getting wet through during a m. period . . .	1
Violent purging, the result of medicine . . .	2
Cholera	2
Rheumatic fever	2
Bronchitis, with fever	2
Fright	9
Total	27

Some of these cases deserve a few words of comment. Lucy A., aged 53, had never menstruated since a miscarriage at 32, and her health has been better ever since.

W. N., now 50, a tall, stout-looking woman, had a child at 34, continued to flood for 8 weeks. She suckled her child for a year, but has never menstruated since.

Elizabeth A., a woman of average strength, aged 47, had a child 10 years ago, suckled it 18 months, and menstruation did not return. In such cases ovarian energy seems exhausted by parturition and lactation, and nature seizes the opportunity to put a sudden end to the m. function.

Julia L., a chlorotic-looking woman, aged 45, had no m. flow since she was 33, when during menstruation she missed a few steps and fell on her back. In such cases the ovaries may be so paralysed by the effects of a mechanical shock that they never recover its effects.

Emily F., a healthy looking person, aged 48, last menstruated at 39, when the m. flow was suddenly stopped by severe frost. She was often troubled with leucorrhœa during the 2 years which followed, but did not otherwise suffer. In such cases cold has the same paralysing influence as a fall, and it is easy to understand that similar effects may be produced by cholera or violent purging. Dusourd relates three cases where the m. flow ceased after the supervention of diarrhœa, coming about every month and lasting for a few days; and he has known the m. flow to cease in three women from 40 to 43, after an abundant hæmorrhoidal flow. Fever has so powerful an effect on the viscera principally endowed with nervous energy by the ganglionic system, that one can understand why it should be a frequent cause of ovarian paralysis.

As at puberty the m. flow is sometimes suddenly brought on by emotion, so fright and the sudden communication of bad news are the most frequent causes of sudden early cessation. The ovaries and womb are stunned by a nervous shock like the frog's muscles by a violent electric shock, which incapacitates them for future action.

Ann G., aged 59; the m. flow ceased at 39, being suddenly suppressed by grief for the death of her husband. The same occurred at 34 to Maria B., now aged 50.

Elizabeth C., a dark-eyed, thin, sharp, and wiry old woman of 71, consulted me for an apoplectic attack. She had enjoyed excellent health until her 30th year, and had been nursing a child 16 months, when her husband suddenly dropped down dead at her feet. Stunned by the blow, she let the child slip from her arms, lost her senses for a few hours, and her milk "turned to water." For a time she felt a good deal shaken, but was always able to attend to her household duties; and her health soon became as strong as usual and continued so until lately, although the m. flow had not appeared since her 28th year, and although the system had not been

relieved by leucorrhœa, diarrhœa, piles, or by systematic treatment.

Eliza S., aged 52, had been regular from 18 to 39, when she was bled at a m. period for rheumatic pains in the shoulders. Immediately after being bled she vomited for an hour, had intense perspirations, but never menstruated again.

Ovarian tumours often cause early cessation of the m. flow. Thus, out of 15 cases of ovarian tumours operated on by Dr. W. Atlee, of Philadelphia, of which he sent me the particulars, some referred to young women, but in most the amount of the m. flow was diminished, and cessation occurred in four cases at 30, 39, 40, and 42. In 14 cases of fibrous tumours, also operated on by Dr. Atlee, the m. flow had been profuse, often attended by hæmorrhages, and continued so up to the time he saw the patients. I have likewise known the m. flow to cease at 32 in women who had always very scantily menstruated.

Thus, in many cases, cessation occurs long before or long after the average period of 45, and although it has not been precisely attempted, I think it desirable to establish clearly the diagnosis of cessation, so as to prevent mistakes and ensure the proper treatment of patients.

Every well-marked condition of the constitution has its peculiar physiognomy, and even at the beginning of the c. of life there is generally something in the appearance which leads me to suspect what is taking place. The physiognomy at such periods indicates debility and suffering, which cannot be accounted for by disease; or there may be the drowsy look of a half-intoxicated person, or the dull, stupid astonishment of one seeking to rouse herself so as to answer a question. In several of my worst cerebral cases there was the same permanent knitting of brows expressive of constant anxiety. The unusual development of hair on the chin and upper lip generally coincides with cessation; so does a sallow complexion; there is also an unusual power of generating

caloric, indicated by the habit of throwing off clothing and opening doors and windows. In other respects the appearance of women at the c. of life varies with the constitution, and the manner in which it is affected by the change.

Women at the c. of life present 3 types—1st. The Plethoric. 2nd. The Chlorotic. 3rd. The Nervous.

1st. The Plethoric type is unmistakeable, with its turgid tissues, its over-florid countenance in a state of perspiration, its anxious expression, or half-intoxicated appearance. The pulse is often full and bounding, though I have been surprised to find a weak thready pulse in florid athletic women.

2nd. While in some the c. of life increases the proportion of globules in the blood, it diminishes them in others, and thus chlorosis is produced. The Chlorotic type is recognisable by the sallow or semi-chlorotic skin, the weak pulse, the arterial murmurs, and various symptoms of debility. Even on the blanched face, faint flushes will bring out perspiration.

3rd. All women are unusually nervous at the c. of life, but some present a well-marked nervous physiognomy without plethora or chlorosis. The over-anxious look, the brimful eye, the terror-struck expression fearing to see some frightful objects, and the face bedewed with perspiration, are not uncommonly met with.

When the m. flow has been for many months absent or irregular, too scanty, or too abundant, in women answering to the above description, I look upon cessation as probable, whatever may be the age, unless the absence of the m. flow can be satisfactorily explained by chlorosis, lactation, or pregnancy. In the absence of all other signs, the c. of life is to be suspected when, for the first time, towards the 45th year, the m. flow comes at intervals of a week or a fortnight.

Cessation may be confounded with I. Chlorosis. II. Inflammation of the neck of the womb. III. Uterine polypi. IV. Uterine fibrous tumours. V. Uterine hydatids. VI. Uterine cancer. VII. Pregnancy. I shall briefly illustrate

these assertions by recording the mistakes which have occurred to myself or others.

I. Chlorosis may be mistaken for cessation :—

CASE 1.—*Cessation supposed to be chlorosis.*—Anne W., aged 33, married, and living with her husband, consulted me at the Paddington Dispensary, July, 1852. She was of middling stature, had light brown hair, blue eyes, and an anæmic hue of countenance. She had lately been treated for chlorosis by steel and bitters.

The m. flow first came at 13; had been regular and without pain until 22, when she married, and had one child at 24. There had been a gradual diminution of the m. flow for the previous year, with intense debility, epigastric faintness, and drenching perspirations.

Here was certainly a case of chlorosis; for in addition to other symptoms there was a loud *bruit de souffle* in the carotids. But was it a case of chlorosis in a married woman, or chlorosis occurring at cessation? I inferred the latter from the *gradual* failing of the m. flow, and the pertinacity of the flushes and perspirations, my tables proving that the m. flow may cease at so early a period.

The c. camph. mixture, a belladonna plaister to the pit of the stomach, and sulphate of iron in pills, much relieved the patient. Six months afterwards she had much improved in appearance, but had not menstruated. I saw her again three years afterwards: her health was good, but there had been neither pregnancy, nor a return of the m. flow.

In this case an error in diagnosis might not lead to injudicious treatment, for the same tonic treatment would be required under all circumstances.

II. Cessation may be mistaken for ulceration of the neck of the womb, as in the following case :—

CASE 2.—*Ulceration of the neck of the womb mistaken*

for cessation.—Mrs. J., a delicate-looking lady, with light hair, and grey eyes, was 47 when she consulted me in 1849. The m. flow came at 17, without much disturbance. She married at 25, and had 3 children, the last 7 years ago, when her health failed, and the m. flow became irregular as to time and quantity, being sometimes very scanty, and at others so abundant as to confine her to the bed or sofa for 10 days. There were frequent bearing-down pains, often followed by leucorrhœa. For the last year there had been no m. flow, but always a little leucorrhœa, which every month became so abundant as to oblige her to take additional precautions. She became nervous, irritable, and was sometimes troubled with flushes and perspirations. She thought the c. of life had occurred, and medical advisers confirmed her opinion, in which I also concurred; but struck with the unusual persistence of leucorrhœa, ever since her last confinement, I advised a further examination, and found the neck of the womb three times its usual size, though little pain was given by pressure. The os uteri was patulous, rough, and when seen through the speculum, the surface appeared extensively ulcerated. This was first treated by the application of the solid nitrate of silver every 4th day, and then by iodine exhibited internally and applied to the surface of the womb, which in 6 months was restored to a healthy condition, and I lost sight of the patient.

I again saw this lady in 1855, and learnt that a few weeks after I had ceased my attendance, she was taken poorly in the usual way, and that the m. flow had appeared monthly ever since.

The m. flow had been prematurely stopped by the debilitated state of the frame and by the chronic uterine inflammation. That once cured, and the system having gained strength, the ovarian impulse became strong enough to induce the healthy uterine discharge.

Phœbe B., a Dispensary patient. The m. flow gradually

stopped at 31, after suckling, and as it remained absent for a year, cessation was supposed to have taken place. On examination, however, I found ulceration of the neck of the womb; that being cured by surgical treatment, the m. flow went on as usual. In such cases, the error of diagnosis would be prevented by a more careful examination of the patient.

III. CASE 3.—*Uterine polypus mistaken for cessation.*—Mrs. P., a thin lady of moderate stature, with dark hair, hazel eyes, and a blanched countenance, consulted me when 42 years of age. The m. flow came at 17, and was regular until 22, when she married. She had one child, and menstruation continued regularly for several years; she then became subject to a red discharge, sometimes slight, at others very abundant. She was very weak, had palpitations on the slightest exertion, but no headaches, hysteria, flushes, or perspirations. Her medical man called the case one of premature c. of life, but had he made an examination, he would have found a polypus the size of a hen's egg hanging from the cavity of the womb, by a pedicle about as thick as the little finger. I removed the polypus, and the m. flow returned, and continued regular for 5 years afterwards.

I have seen several similar cases.

IV. CASE 4.—*Fibrous tumour of the womb during the change of life supposed to be pregnancy.*—Mary B., aged 47, unmarried, a tall, stout woman, of a sanguine temperament, dark hair, and a florid face, became a patient of the Paddington Dispensary, Jan. 23, 1850. Menstruation first appeared at 15, and was regular, but very abundant up to the 40th year. For the last 7 years the flow was always irregular, and had often amounted to a flooding, with intense bearing-down pains. For the last 6 years she had been subject to frequent flushes and sweats, and to much pseudo-

narcotism. Now her eyes look heavy and bewildered, her head feels giddy and stupid, she is afraid of falling; there are considerable abdominal enlargement, vesical tenesmus, and morning sickness. On examination, I found the womb much enlarged, more so on one side than on the other; and I gave for diagnosis, "Fibrous tumour of the womb with symptoms of cessation." Under the influence of my usual treatment the patient was relieved.

June 16th she again applied for advice, and told me that, as the pains had returned, with suppression of menstruation for the last 4 months, and as the abdomen had increased in size, she consulted one of my colleagues at the Dispensary, who, after examination, pronounced her pregnant. Distressed at an opinion which implied what she knew to be impossible, she again submitted to an examination, which only confirmed me in my former opinion. The result proved that I was right, for, soon after, menstruation returned, and continued to do so at irregular intervals for the following year.

In this case, the advanced age of the patient, the prolonged irregularity of the menstrual flow, the persistences of pseudo-narcotism, of the flushes and perspirations, made it probable that these symptoms were produced by the c. of life.

The sanguineous discharge or fibrous tumours and polypi, and the flooding they determine, are often confounded with the m. discharge and with the flooding of cessation, but not rightly so unless the discharge or the flooding be periodical. In a case of extreme fibrous tumour, which I shall hereafter relate, flooding lasted for 8 years without intermission; but there is no ascertaining whether this was caused by the c. of life.

V. The following case puzzled me exceedingly, and was for a time supposed to be connected with the c. of life:—

CASE 5.—*Uterine hydatids supposed to be the change of life.*—Anne H., a tall, delicate-looking woman, with light hair and blue eyes, was 39 when she first consulted me at

the Paddington Dispensary, June 17th, 1850. The m. flow appeared at 15, with great abdominal pains, which often accompanied the healthy flow. She married at 20, had 6 children, and was regular up to the last year, since which time the flow came at 2, 3, 5, or 8 weeks' interval, with greater pains, and with nervous fits, in which, though conscious, she would remain from 6 to 8 hours in a perfectly powerless and speechless state. On examination, I found nothing the matter with the womb, so I imagined the c. of life was approaching, and treated her accordingly, but without affording great relief. The m. flow stopped for 3 months, up to which period nothing had caused me to alter my diagnosis; but in December flooding came on, and I have seldom witnessed greater sufferings than she endured for a year, flooding frequently occurring, with intense abdominal pains and hysterical fits. The womb was patulous but not ulcerated, and its body was not much enlarged. I gave opium and ergot of rye in repeated doses for a long time with decided benefit, for on May 10th, 1851, the m. flow appeared at the proper time, and without much pain. The abdomen was much swollen. After walking home, on June 23rd, dreadful forcing pains brought away from the vagina about a pint of sticky, rose-coloured water, without smell. This was followed by a sanguineous discharge, lasting for several days. A digital examination was very painful, but I ascertained that the body of the womb was anteverted, much enlarged, and so high that it was difficult to reach the os uteri. I gave opium enemata, which relieved the pains; alum injections were used, but when they stopped the flow, the pains returned, which were only relieved by flooding. To obtain parish relief, it became necessary that the patient should be attended by the parish doctor, so she passed under the care of Mr. Howlett; but I learned that, after very violent abdominal pains, half a pint of glutinous liquid was again passed from the vagina on July 5th, after which she continued to lose blood. It some-

times dribbled, at others came as a flooding. When the uterine discharge stopped for 2 or 3 days, the pains became excruciating, notwithstanding the exhibition of sedatives inwardly and outwardly; and this state of things continued until I was sent for to see the patient on December 6th, when, after labour pains, she brought away a large mass of hydatids, which well explained the frequent floodings and the patient's protracted sufferings. Ergot of rye induced bearing-down pains, and brought away dark, offensively-smelling blood. Opium relieved the sufferings. The patient recovered, and had another child a year after.

Uterine hydatids is a rare disease, generally occurring earlier in life, and its diagnosis is often very obscure. The enlarged womb, the continued flooding without ulceration of its neck, alternating with the limpid or rose-coloured glutinous discharge—the best sign of uterine hydatids—was absent in the early part of this case. The diagnosis of uterine hydatids, being clearly established, if the case had not passed into other hands, I should have introduced the uterine sound. This would have determined the expulsion of the hydatids, and saved the patient 6 months' suffering.

VI. The floodings of cancer are not unfrequently considered indications of the c. of life, particularly when they occur in young women presenting a healthy appearance—an error which can only be prevented by an examination.

VII. Pregnancy occurring late in life is often taken for cessation, the more so as, at whatever age, it is not unfrequently accompanied by the flushes, perspirations, and many of the nervous symptoms which characterize cessation. Under these circumstances it is better to give a guarded opinion. Thus De la Motte relates, that a lady, for fear of having children, would not marry before 51; and when she became pregnant, all the symptoms were considered to depend

on the c. of life. It much more frequently occurs, however, that the first symptoms of the c. of life are mistaken for pregnancy. This is sometimes the effect of imagination ; for, as De la Motte remarks, many women have such a dislike to age, that they would rather persuade themselves they are with child, than suppose they are feeling the consequences of growing old ; and they indulge this persuasion, until, like Harvey's widow, all hope vanishes in wind. Sometimes, however, the patient's belief in pregnancy is founded on data which puzzle the faculty. The m. flow stops, the abdomen gradually enlarges, and women, who have had children, are convinced they feel the moving of the child, the breasts swell and distil a milky fluid, there is sickness and impulsive desires ; if a flooding takes place, the symptoms abate, but may again recur. B. de Boismont relates three cases of this description, and Fodéré two. The following are instances that have occurred in my own practice :—

CASE 6.—*Cessation mistaken for pregnancy.*—Mary C., married, aged 45, a tall, delicate-looking woman, with blue eyes and dark hair, thinks herself pregnant, and has been told so by several practitioners, consulted me at the Farringdon Dispensary, September, 1850. The m. flow came at 11, and was attended by little disturbance both before and after marriage. She married at 27, to a husband of the same age, and in rude health, but she never conceived. For a year the m. flow has been either abundant, with large clots, or very pale, and for the last 6 months it has been altogether absent, the abdomen gradually enlarging, the breasts becoming swollen and sore, with leucorrhœa and hysterical sensations in the throat. On examination, I found the abdomen enlarged, but without the centrally situated, uniformly round tumour of a pregnant womb. The womb was small, with a virgin orifice. That the patient was not pregnant I felt convinced, and I inferred the c. of life from the long continuance of m. irregularities, the continued epigastric faintness, the flushes and

sweats. My usual treatment relieved the patient; for many months she had an abundant mucous discharge every month from the vagina, which was not interfered with. When I last saw the patient she was 50, and there had been no return of the m. flow.

CASE 7.—*Cessation supposed to be pregnancy.*—Sarah B., a tall, thin woman, of a sanguine temperament, says she is 35, but looks 40, applied at the Farringdon Dispensary for a lying-in-letter, on May 7, 1851. The flow first appeared at 14, was unattended by pain. She married at 18, has had five children, but has never been well since her last confinement two years ago. Hypogastric pains were habitual, the m. flow irregular, for the last six times it had the appearance of dirty water, and ceased entirely 7 months back, when the abdomen enlarged, and she now feels a fluttering similar to what she felt when pregnant. The breasts are swollen and discharge moisture, and the nipples are surrounded by a dark circle interspersed with a few pseudo-follicles.

Notwithstanding these signs of pregnancy, and the patient's assertions, I did not think her pregnant, for there was no solid umbilical tumour, no softening of the neck of the womb; and the irregularities of the m. flow, and the appearance it last assumed, coupled with a great liability to flushes and perspirations for the last three months, were my reasons for thinking the c. of life had occurred. That my opinion was correct, I ascertained upon inquiry several years after.

I have notes of three similar cases.

In the preceding cases, I believe that connexion taking place during the c. of life, induced a nervous condition of the womb, capable of determining most of the symptoms of pregnancy; and should the abdominal swelling, the nausea, the swelled breasts persist for months, the supposition of a foetus as the cause of these symptoms might be easily admitted, and the rightful heir to an estate be defrauded without the possibility of detection, if the woman had already borne

children, unless an investigation were made soon after the supposed event. Gooch has noticed another class of cases simulating pregnancy occurring at the c. of life. The uterus is torpid, the intestines are flatulent, and the omentum and abdominal parietes have grown very fat, women having then, what Baillie called, "a double chin in the belly." The most notorious blunder of this description was in the case of Joanna Southcott, who, although 64, was thought pregnant by many medical men. The walls of her abdomen were coated with four inches of fat, and the omentum was one lump of fat, and four times the usual size.

There are other cases of spurious pregnancy caused by a morbid condition of the lining membrane of the body of the womb. It appears that a few days after the sanguineous flow has ceased, a *magma* is passed with the mucous flow. When examined, it is more or less extensive, elastic, of a bluish tint, found to be albuminous by chemical tests, and the microscope shows that it is formed by the cylindrical epithelial cells which line the uterine cavity. Such, at least, is the result of Pouchet's elaborate investigation, proving that this catamenial exudation is an abortive attempt to place the uterus in a position to receive and attach the ovum to its cavity.

Such is the *normal* condition, but at other times the virgin womb produces at each m. period a smooth, velvety, false membrane, completely like the decidua, except that it contains no foetus. This false membrane, as Coste remarks, would be called a product of inflammation, if met with on any other mucous surface; and Dusourd has met with several cases of uterine exfoliation at the c. of life, the membrane being passed without flooding, but with great pain. In other women, unmarried as well as married, there is no such membrane, but the solid constituents of the blood unite, and come away as an ovoid "mole" in the midst of parturient pains. In such cases the womb really swells, and is able to cause

all the sympathetic disturbances of pregnancy, as in the following case :—

CASE 8.—*Cessation and spurious pregnancy mistaken for pregnancy.*—Five years ago, I was consulted by a lady under the following distressing circumstances. The patient moved in good society, was 45, unmarried, stout, and of a florid complexion. The m. flow came at 14, had been regular and with little disturbance until the previous 2 years, when it became irregular both as to the time of its appearance and its amount, sometimes being very scanty, at others abundant and containing large well-formed clots coming away with intense abdominal pains. There had been no m. flow for 6 months previous to my being consulted, and at that time the abdomen had gradually attained a size sufficient to attract attention. Her appetite was capricious and she was distressed by morning sickness, which led to ill-natured comments from some malicious friends who spread about the report that the lady was in the family-way, which report soon reached the ears of a gentleman to whom she had long been engaged.

On making a careful examination, I found the womb enlarged to about treble the size of the unimpregnated uterus, but still it was not so large as it would have been had the patient been 6 months pregnant. The neck of the womb was shorter than usual, but not as it generally feels in the 6th month of pregnancy. The breasts were swollen, the nipples surrounded by a darker circle than habitual ; but there were no follicles. Taking these circumstances into consideration, and bearing in mind that ever since the m. flow had been irregular, the patient had been constantly troubled by flushes and perspirations, I gave as my opinion that the lady was suffering from the symptoms of the c. of life aggravated by some chronic enlargement of the womb. A course of purgatives, mild tonics, and sedatives somewhat relieved the

sickness and nervous symptoms, but the size of the patient seemed rather to increase than diminish. Two months after I was first consulted, or eight months after the m. flow had first stopped, I was sent for in the middle of the night, and found the patient in pains resembling labour pains, and after these had lasted several hours, a substance was passed about the size of a small Seville orange. Its external surface was rough, in part coated with well-organised fibrine, and on being cut open it was found to contain limpid serum. The walls of this hematic cyst varied in thickness from 2 to 5 lines. Its internal surface was small, and had no lining membrane; and microscopical inspection confirmed the belief in the fibrinous nature of the cyst. The passing of this singular body was followed for several weeks by a sero-sanguinolent discharge, by considerable abdominal pains, and by intense mental distress. On making an examination six weeks after the foreign body was passed, I was able to ascertain that the womb had returned to its normal size; the mind was longer recovering tranquillity, for the engagement was broken off, valued friendships had cooled down to stiff formalities, notwithstanding my emphatic declaration that the blood cyst passed by the patient could not be the result of conception. When I last saw the lady she was 49, and there had been no return of the m. flow.

If small clots of blood not unfrequently receive a partial organization in the womb, it enables one to understand how, in this case, the serum of a large clot separated from the fibrine, which constituted the walls of the cyst.

I believe this kind of spurious pregnancy is most likely to occur in women who for the first time experience the matrimonial stimulus at the beginning of the c. of life. I have met with several cases of this description. One was a lady who married at 47, after the first indication of the c. of life. Another was a lady of 45, who after being a widow for 12 years, married again when the m. flow had become very

irregular. Soon after marriage all the usual symptoms of pregnancy showed themselves, the womb seemed 4 or 5 times its usual size, and after remaining so for 5 months, a mass of half-organized fibrine was passed, and the patient recovered, but the m. flow continued irregular. Dusourd mentions the case of a woman at the c. of life who thought herself pregnant, when on stooping she felt herself wetted by a serous fluid coming from the womb, on which the abdomen subsided and the swelling of the breasts also. It stands to reason that a uterine or ovarian tumour at the c. of life may be an additional reason for supposing pregnancy.

The signs of pregnancy are, of course, obscure during the first few months, but then, judgment can be deferred. If, at a later period, mistakes are made, it is because all the circumstances of the case are not taken into consideration, or because one is not permitted to ascertain their existence. Thus, in the case of the notorious Southcott, the medical men who believed her pregnant were not allowed a vaginal examination; but even without that opportunity, Mr. Sims, the Locock of his day, was convinced that the impostor was not pregnant from the state of her breasts and the absence of any umbilical prominence. In cases simulating pregnancy, the neck of the womb does not feel softened and puffy, the vagina is not livid. The patient states that the abdominal swelling began at the navel, and did not rise from the pubis; the movements felt in the abdomen are accompanied by ill-defined depressions, instead of well-marked elevations. Pressure, cold, and the agitation of the body, do not reproduce the movements as they do when a child is in the womb. The navel is depressed instead of being salient, and there are ill-circumscribed hardnesses instead of a regular ovoid central mass; there may be gurgling sounds in the intestines, instead of the placental murmur and the foetal tic-tac, and the follicular development of the breasts is imperfect. The diagnosis of cessation being thus established, I proceed with my inquiry.

Having ascertained the average date of last menstruation, I have a fixed point whereby to calculate the amount of time before and after which the health of women was peculiarly affected. The length of the dodging time is extremely variable, and, like the prodromata of first menstruation varies from a few months to 6 or 7 years. Out of my 500 tabulated cases, there was no dodging time in the 137 women in whom cessation was sudden; 275 thought the dodging time had lasted during the periods indicated in the following table.

TABLE XI.

LENGTH of Dodging Time.

TIME.	CASES.	TIME.	CASES.
Months.		Years.	
1	2	2	52
2	3	3	25
3	9	4	9
4	4	5	4
5	5	6	6
6	32	7	5
7	4	8	3
8	11	9	1
9	3	12	1
10	9	14	1
11		18	1
12	60		
18	15		108
			157
	157	Total	265
<i>Average Length of Dodging Time.</i>			
Years		2.2	

The average duration of the dodging time would be two years and three months; but this would give an incorrect idea of its length, for, on cross-questioning patients, I have generally found that for a few months before the m. flow became irregular, other changes had taken place, either the quantity had gradually diminished, or was sometimes scanty, at others

profuse. Frequently the quality of the discharge had altered, and had been, for months, observed to be more serous, of a paler colour, or like brown or green water. I therefore consider that ovarian influence begins to fail in most women from 2 to 3 years before 45, or about the 42nd year.

There are, likewise, no positive means of measuring the length of time which elapses between the cessation of menstruation and the re-establishment of health, because the resettlement of the constitution is brought about insensibly, and varies extremely in different individuals; but from the study of 383 cases, I conclude that, in general, when 3 or 4 years have elapsed since cessation, women are no longer liable to the floodings, the sweats, or to the distressing nervous symptoms, whether cerebral or ganglionic. When the cessation of menstruation is to bring into activity the seeds of complaints which have been long dormant in the system, it generally does so in the four years which follow cessation, so that the c. of life taking place from 42 to 49, the seventh septenniad of woman's life is an extremely critical period of her existence.

Having ascertained the average date of cessation, and taken into account exceptions to the rule, I give the following table, showing the duration of the m. function :—

TABLE XII.

DURATION of the Menstrual Function.

Number of Years.	Number of Cases. B. de Boismont.	Number of Cases. Dr. Tilt.	Number of Years.	Number of Cases. B. de Boismont.	Number of Cases. Dr. Tilt.
5	1		30	13	36
6	1		31	13	33
8	1		32	9	38
11	1	1	33	9	35
13		1	34	7	49
15		3	35	4	33
16	4	1	36	10	26
17	4	2	37	6	16
18	1	4	38	5	15
19	3	1	39	2	15
20	3	3	40	7	6
21	4	6	41	1	4
22	3	11	42	3	7
23	12	11	43	1	5
24	8	10	44	1	3
25	8	22	45		1
26	11	11	46		1
27	7	25	47		3
28	6	29	48	1	
29	7	33			
	85	174		92	326
				85	174
			Total	177	500
<i>Average Duration of Menstrual Function.</i> }			Yrs.	28·93	31·83

These cases were collected under similar circumstances in Paris and in London; and I account for B. de Boismont having obtained so short an average duration of the m. function, from his having operated on too small a number of cases. It is generally stated that the average duration of the m. function is 30 years, I believe it to be 32, which is therefore the average duration of female fecundity, that of each successive generation, three facts which are interdependent.

The annexed table confirms the unproved assertions of B. de Boismont in France, Drs. Guy in London, Frank at Milan, and Dusourd in the south of France, that the duration of m. life is longest in those who have menstruated earliest, although cessation is often delayed in those who menstruate very late in life, as it has been demonstrated at page 26.

TABLE XIII.

Influence of EARLY AND LATE *Menstruation on the* DURATION OF THE MENSTRUAL FUNCTION.

Years elapsing between 1st and last Menstruation.	Cases of 1st Menstruation at from 10 to 12 Years of Age.	Cases of 1st Menstruation at from 17 to 19 Years of Age.	Years elapsing between 1st and last Menstruation.	Cases of 1st Menstruation at from 10 to 12 Years of Age.	Cases of 1st Menstruation at from 17 to 19 Years of Age.
12		1	31	5	14
13		1	32	5	5
15		1	33	6	6
17		1	34	5	3
18	1		35	5	1
19		1	36	5	
20	2		37	3	
21	3		38	4	1
22	1	3	39	4	2
23	1	9	40	3	
24	1	2	41	1	
25		4	42	3	1
26		1	43	2	
27	1	9	44	1	
28	6	10	45	3	
29	3	4	47	1	
30	1	8			
	20	55		56	33
				20	55
			Total	76	88
<i>Average Duration of Menstrual Function</i> } Yrs.				34.29	28.78

Thus while the general average duration of the m. function is 32 years, its average duration increased to 34 years and 3 months in the early menstruated; decreased to 20 years and 7 months in the late menstruated, and between duration of the reproductive life of those who menstruate at an early or

late period of youth, there is the striking difference of five years and six months.

It will be obvious that these calculations only hold good for England, France, Germany, and such parts of Europe as are comprised in their latitudes, for there are no positive data by which we can calculate the period of menstruation, and of possible fecundity in hot and cold climates. The first appearance of the m. flow occurs in India about 3 years before it does in England, and travellers say that it ceases in India and in hot climates between the 30th and 35th year. This would imply that the period of fecundity was less by several years in hot than in temperate climates. Dr. Ravn, of Copenhagen, has enabled me to demonstrate that first menstruation occurred in Sweden about 2 years later than in England. A reference to the fecundity table of Sweden and Finland, given at p. 21, does not show that procreative power is prolonged in so northern a latitude beyond the limits which bound it in England and Ireland; I therefore infer that the period of procreative power is also shorter in northern latitudes than in England. In other words, the procreative power of man lasts longer in temperate than in hot or cold climates. Would the climate of India so modify the constitution of English women as to curtail the period of their fecundity? There are no means of answering the question, but guided by the fact of the m. flow having been known to appear late in young women transplanted from England to India, I infer that its cessation would occur there, at the time of life it ordinarily ceases in England.

Is fecundity possible during the c. of life? After the 45th year the chance of fecundity suddenly diminishes, becoming less and less every year, but it is possible so long as the m. flow appears, however irregularly. I know of two instances in which conception occurred during the c. of life. One was a single lady, 47 years of age, in whom the m. flow had been very irregular for the previous 2 years, with that general

failure of health which so often indicates cessation. The belief that impregnation was impossible at this period led her to permit liberties which were followed by pregnancy and the birth of a child. This case is the more remarkable as connexion only occurred once, 17 days after a flooding which lasted for 10 days, a fact irreconcilable with the ovulation theory.

Is fecundity possible after cessation? This question admits of being answered in the affirmative, because ovulation is not tantamount to menstruation. The ovaries may induce most of the symptoms of menstruation, and they may shed ovules without the womb discharging blood. Women sometimes conceive during lactation without the return of the m. flow; and as, in some very rare cases, conception has taken place before first menstruation, so I believe it possible in very rare cases after cessation. Mr. Pearson, of Staleybridge, has published the case of a woman who, at the age of 47, was delivered of her 10th child, 18 months after the cessation of the m. flow. In answer to my inquiry, Mr. P. kindly informed me that between her two last confinements 3 years and 4 months had elapsed, and that after suckling the child she had been regular several months previous to the cessation of the m. flow, for which no cause could be detected. This woman suckled her last child and has not menstruated since: 46 is not a very unusual date of protracted procreative power, but the fact of conception taking place 9 months after cessation is very singular. As an instance of the eccentricities which characterise the generative function, I may mention that I know a lady who was married at 18; both herself and her husband enjoyed habitual good health, but conception never took place until the lady was 48, when she bore a child. It would have been the opinion of every medical man that all chance of family had passed, as in another case reported by Schmidt, where a well-formed female, married at 19, did not bear a child until she had reached her 50th year. Having

ascertained the date of cessation, I shall proceed to enumerate the various modes in which the m. flow may cease.

TABLE XIV.

Terminations of the m. Flow in 637 Women.

Modes of Termination.	No. of Women.
By the gradual diminution of the m. flow	171
By the sudden stoppage of the usual m. flow	94
By the sudden stoppage and a terminal flooding	43
By a terminal flooding	82
By a succession of floodings	56
By alternate, copious, or scanty m. flow	36
At irregular intervals, longer than 21 days, the normal length of the intermenstrual period	99
At irregular intervals, shorter than 21 days	33
At irregular intervals, alternately longer and shorter than 21 days	23
Total	637

When the m. flow appeared at irregularly prolonged intervals, it was said to have occurred about every 2nd, 3rd, 4th, 5th, or 6th month, and sometimes at longer intervals, the longest being 16 months. When it appeared at irregularly contracted periods, it was said to have occurred at about 1 or 2 weeks' interval.

The duration of the flow at each m. epoch was less and less in the 171 women in whom there was a gradual diminution of the m. flow. When the mode of termination was erratic, the duration of each m. period was also irregular. Flooding continued either for a longer or a shorter time than that usually allotted to the m. flow; but I have generally observed that, during the first part of the dodging time, the m. period was often prolonged to 8, 10, or 15 days. As this may, however, be caused by a morbid condition of the neck of the womb,

an examination is necessary. During the latter part of the dodging-time the m. flow became less and less till it lasted only a day, or was a "mere show." With regard to its quality during this period, it was said to be sometimes blacker than usual, more clotty or sero-sanguinolent, or to be like cinder-dust and water, or dirty green water, like the latter part of the lochial discharge.

Some physiologists maintain, not only that menstruation is always the effect of ovarian action, but that each m. flow is caused by the ovary shedding an ovule, and, under pain of great inconsistency, they must explain in the same way all its varied terminations. In their opinion, the emerging of an ovule from the ovary causes the floodings of cessation or sero-sanguinolent discharges, no matter whether they occur every week or every six months. I am not obliged to adopt so irrational an explanation, because, while granting the possibility of a coincidence of ovulation and menstruation, I have never admitted that the m. flow is the result of ovulation. The more I observe the more I am struck by facts which cannot harmonize with the ovulation theory. I have patients in whom any unusual nervous emotion or over-exertion will bring on the m. flow with the usual m. symptoms, although they may have only just recovered from this discharge. How can it be supposed that an ovule can be ripened, and the dense ovarian envelope suddenly perforated by the fatigue of a dinner party, by hearing disagreeable news, or by an altercation with a servant? The laws of ovulation are as yet imperfectly known, but I believe that it proceeds as regularly, fatally, and uninterruptedly as nutrition; whereas the m. function shifts its periodicities, returning about the 14th or the 21st day after the last epoch, whether it came at a right or a wrong time. This sudden shifting of periodic action is the special attribute of the nervous system, shows the m. flow to be impelled by nervous influence, and explains how a strong emotion may repel the m. flow or alter the time

of its appearance. That sudden emotion should cause the uterine surface to perspire is only a repetition of the well-known effects of emotion on other parts.

The sudden diminution of fecundity after the 45th year implies that ovulation has become less frequent, and that there is a greatly-diminished chance of its coinciding with the m. flow; but I have known conception take place after flooding, and also after a m. flow, described as "a mere show."

The evident utility of the c. of life is to remodel the female frame, so that health may be made consistent with the absence of an habitual drain. An unusual intensity of that force which presides over nutrition is shown by its being able in many women to use up the retained blood, so as to strengthen the inner tissues of the frame, in the same way that it alters their outward appearance. In others, the nutritive force turns the superabundant blood into fat, and stores it up for future emergencies. I have seen the sudden growth of fat coincide with great improvement in health. This was most marked in Matilda W. It coincided with the great improvement caused by treatment, which, in other words, so modified the nutritive force as to enable it to convert blood into fat. Dr. G. Bedford also remarked "that those who became fat-bellied were not troubled with nervous symptoms." When the nutritive force is not able to turn the blood into fat, the balance of circulation is disturbed and leads to erratic fluctuations, misdirections of blood, and to congestions or discharges from various organs. This occurs generally during the first part of the c. of life, when women rather decrease in size than otherwise, but they grow fat in the latter part. Thus out of 383 women in whom there had been no m. flow for 5 years, 121 had grown stouter than before, 71 had retained the same size, and 90 had become thinner; in other words, only one-fourth of the 383 had become thinner than usual 5 years after cessation. Wishing to know whether continued illness during the c. of life had any effect on the greater or less tendency to become

stout, I divided the 383 women into three classes, according as they had suffered much, little, or not at all, and I found that the proportions of the stout and thin were about the same, and that if those who suffered considerably during the dodging-time had then become thinner, nutrition became unusually active in the latter part of the c. of life. Three out of the 383 became suddenly fat at cessation, but this *embonpoint* was no indication of strength. Although the mammary glands become atrophied at the c. of life, they often seem to retain their former size from the deposit of fat in their vicinity, and may become pendulous. Fat in the omentum has sometimes led to an erroneous diagnosis of pregnancy. Fothergill has observed that women are more likely to grow stout in whom menstruation has suddenly ceased before the usual time, unless it be caused by some internal complaint. I have known this to occur several times, as in the following instance, which may help the diagnosis of early cessation:—

CASE 9.—*Sudden embonpoint a sign of cessation.*—Eliza L., aged 32, stout, and with dull grey eyes, consulted me at the Farringdon Dispensary in 1856. The m. flow appeared at 9, and came regularly with a moderate amount of headache and pseudo-narcotism. She married at 27, but never conceived, and was regular until the m. flow suddenly ceased at 30, after a fit in which she was unconscious for five hours. When a child at school she used to faint away, and was with difficulty brought to her senses. She frequently fainted before marriage, but since then no fainting fits had occurred until two years ago, when, after unusual exertion, she remained unconscious for 5 hours. A year ago she had another fainting fit, and for the last two years she has been much troubled with giddiness, headache, and pseudo-narcotism. She now complains of not being able to see, “as if from a skin before the eyes.” She is habitually troubled with epigastric pain, or uneasy sensations at the pit of the stomach, and she has grown immensely stout. It would be wrong to

include this case amongst those of early cessation, until it has been proved by time, though I believe it to be so, because the m. flow never re-appeared after the intense nervous shock, because for two years she has had all the ordinary symptoms of cessation, and because she has considerably increased in size. Fat accumulates in women after the c. of life, as it accumulates in animals from whom the ovaries have been removed. The withdrawal of the sexual stimulus from the ganglionic nervous system, enables it to turn into fat and self-aggrandisement that blood which might otherwise have perpetuated the race. As, during the dodging-time, the redundant blood cannot, in general, be used or changed into fat, it is expelled, and constitutes various hæmorrhages, or else it produces congestions or discharges, the latter relieving the former. As for thirty-two years it had been habitual for woman to lose about 3 oz. of blood every month, so it would have been indeed singular, if there did not exist some well-continued compensating discharges acting as wastegates to protect the system, until health could be permanently re-established by striking new balances in the allotment of blood to the various parts. The compensating agencies may be thus classed :—

- I. A larger consumption of carbon by the lungs.
- II. An unusual amount of urinary deposits.
- III. Increased perspiration.
- IV. Abundant mucous flows.
- V. Hæmorrhages from various organs.

Some of these compensating actions proceed permanently, as from the surface of the lungs and skin ; others occur irregularly ; but in a certain number of cases the compensating action recurs periodically, assuming the monthly type, the type of the function which is falling into abeyance.

TABLE XV.

Monthly Occurrences after Cessation, in 53 out of 500 Women.

Nature of the Occurrence.	No. of Women.
Lumbo-abdominal pains	15
Leucorrhœa	12
Headache and pseudo-narcotism	7
Diarrhœa	5
Entorrhagia	2
Bleeding piles	1
Hysterical symptoms	2
Hysterical oppression, or asthma	2
Great depression of strength	1
Sweats	2
Dyspepsia	1
Stomatitis	1
Swelled gums	1
Swelled legs for 3 days.	1
Total	53

I. RELIEF AFFORDED BY RESPIRATION.—The balance between the respiratory and the m. function is forcibly shown by the fact that, at whatever period of life, whenever menstruation is diminished or suppressed, more carbon is consumed per hour by the lungs, and less when the menstrual flow has been re-established. This removal of carbon from the system by the m. flow has been shown by the interesting experiments of Andral and Gavarret, who found that, in both sexes, from 8 years of age to puberty, there was an augmentation in the quantity of carbonic-acid gas excreted by the lungs; but, as soon as ever menstruation takes place, women continue to excrete the same quantity of carbonic acid as before; while, in man, the quantity goes on increasing.

From experiments made on 20 women, it appears that during the whole of the time comprised between the first and last menstruation, the strongest and healthiest only excreted per hour a quantity of carbonic acid representing gr. 6·4, or the same quantity as before puberty, while men excreted gr. 7·4 per hour before their 15th year, and gr. 11·3 per hour from 15 to 40 years of age.

After cessation of the flow, the lungs more largely excrete carbonic acid; for in women aged from 38 to 49, and who had ceased to menstruate, the quantity of carbon consumed per hour arose from gr. 6·4 to gr. 8·4.

II. RELIEF OBTAINED BY THE INCREASED DEPOSITS IN THE URINE.—The majority of women notice that, during the dodging-time, the urine, instead of being transparent, is unusually loaded with sediments, and this persists for weeks, and often recurs during that period. These sediments consist of lithates and phosphates, and, as in febrile affections, they indicate an effort of nature to relieve the system, and point to the utility of alkalies—useful, likewise, when the urine is saccharine.

III. RELIEF OBTAINED BY INCREASED SECRETIONS FROM THE SKIN.—The importance of the relief afforded by the skin may be gathered from the subjoined table:—

TABLE XVI.

Cutaneous Exhalations in 300 out of 500 Women.

	No. of Women.
Perspirations attendant on flushes	201
Perspirations occurring monthly	2
Sweats	84
Cold perspirations	13
Total	<hr/> 300

With the exception of the few cases in which the perspirations were cold and clammy, this exhalation is associated with

an increased production of heat, and with that irregular distribution of it which is called "flushes." These occurred to 244 women out of 500; 14 others were troubled with "dry flushes." The flushes determine the perspirations. Both evidence a strong effect of conservative power, and, as they constitute the most important and habitual safety-valve of the system at the c. of life, it is worth while studying them, though they have not hitherto been deemed worthy of serious consideration.

It must have struck many, that at the c. of life most women have the power of generating a more than usual amount of heat; they often want less clothing, and even in winter leave their doors and windows wide open. Sometimes, however, instead of being regularly distributed, this caloric bursts forth as flushes, the starting point of which seems to be in the epigastric region, for women feel as if something started from there, spread over the chest, or more frequently over the face, which becomes suffused and hot. I have heard women compare their sensations to burning steam rising from the pit of the stomach. These flushes may be considered as cases of pathological blushing. They sometimes come after a chill, or a momentary sensation of shivering, or after sinking and faintness at the pit of the stomach, but oftener without these sensations. If the flushes do not terminate in a gentle moisture of the skin, women call them "dry heats." The flushes may last two or three minutes, but it will often take a quarter-of-an-hour to carry off the effects of each wave of heat that is wafted to the surface. The number of flushes occurring in the course of the day varies extremely. Their spontaneous repetition, 5 or 6 times an hour, either by day or night, is not uncommon to women at the dodging-time. Some months after cessation, they frequently occur only 7 or 8 times in the day. This may be the case for years after cessation, and even in extreme old age under the influence of worry or ill-health, but then they have not the intensity which renders them so distressing at the c. of life. The recurrence of flushes so late

in life is not to be wondered at, for woman has been made a blushing creature, and who has not seen women of 60 or 70 blush at the thought of a possible offence to modesty?

The face and chest generally suffer most from flushes, but some other part of the skin may be affected, like that covering the abdomen, or the thighs; "the hands and nails of a lady became like fire," but although the skin was on fire the pulse was often weak and slow. Robust women, of a sanguine temperament, are more troubled with flushes, confirming Sir J. Ross's assertion, that the sanguine temperament has a peculiar power of generating heat, denied to the pale, sallow, and phlegmatic. The received notions respecting animal heat throw no light on the generation of caloric at the c. of life, so I question the correctness of a theory which cannot, at the same time; account for the pathological developments as well as for the normal manifestations of this power. In what way does the pulmonary theory of heat explain the various forms of fever? How is it that there may be intense fever when the lungs are so extensively consolidated as to leave but a small area for the combustion of air? If it were evident that a room became more and more heated as the quantity of fire in the grate was diminished, would it not be inferred that the room was warmed by some other source? Why should not the same reasoning be applied to the human edifice? Why should it be forgotten that all molecular actions generate heat, and that these actions incessantly proceeding in living bodies must generate heat as permanent and continuous as their nutrition, beginning with life to cease only with it? The quantity and quality of this heat varies with the quantity and quality of the blood, which is the fuel of the animal combustion, proceeding in the breadth and depth of our tissues, so that if the blood is in a healthy condition the heat is physiological, if on the contrary, it is the heat of fever. I have thus accounted for one common stock of continuous chemical heat, but how is it collected? and what are the laws of its distribution? At times

it will burst forth in fitful paroxysms, but as in intermittent fevers these ebullitions of heat follow a rhythmical march, so I conclude they are governed by the nervous system, which holds the blood-vessels and nutrition in its web-like grasp. There are then *nervous* bursts of heat, distinguishable from *chemical* heat. One feels cold before dinner; a few mouthfuls of solid food are taken and sensations of warmth are produced, not to be explained by the assimilation of yet undigested food; that is *nervous* heat. When the food turns into chyle, passes into the blood and becomes the pabulum of the chemical actions of nutrition, there is a marked increase in the amount of *chemical* heat.

Blushing exemplifies nervous heat. The mental portion of our being first receives an impression, and instantaneously communicates it to the emotional; then follows the sudden reaction on the epigastric region; a momentary concentration of force takes place, during which the skin is somewhat paler and colder than usual, there is almost an imperceptible sigh, a glow is felt at the precordial region, a sudden something seems to rush forth from the epigastrium, swift as a flash of lightning, and then wave after wave of blood is poured in burning streams to the whole surface, or only to the neck and face, which appear a living blaze of blood. The heat passes off, and the blood retreats from the capillaries, resuming its slower course, unless the emotional feelings become once more aroused. Thus, in the physiological phenomena of blushing, heat is evolved by the reaction of emotion on the voluminous ganglia and plexus of ganglionic nerves situated at the pit of the stomach; but what this nervous centre does under the influence of emotion it also does *spontaneously*, causing pathological blushing—the heats or flushes to which women are subject at the m. periods, during pregnancy, and lactation, but chiefly at the c. of life; in fact, whenever the ganglionic nervous system is called upon for increased action. This confirms the assertions of the oldest physiologists, for

Hippocrates noted shivering and an unusual development of caloric to be a sign of conception, Galen considered the reproductive organs to be a source of caloric for the system, and Brongniart discovered that even in plants reproduction is attended by an appreciable increase of their usual temperature.

The influence of the ganglionic nervous system in the distribution of animal heat has been experimentally shown by one of the most promising physiologists of the day. Claude Bernard found that the section of the sensory and motor nerves was not followed by any increase of heat, but on dividing the nerve by which the superior and inferior cervical ganglia communicate, and thus preventing the influence of the great sympathetic nerve from proceeding to its central ganglia, great heat was developed in the capillaries above the point of section of the ganglionic nerve. These experiments have been repeated by Dr. H. Jones, who observes, that the division of a sympathetic nerve causes the blood-vessels within its range of distribution to dilate, the pulsation of the arteries to become more energetic, and the temperature to rise as much as 10° and 15° . Something similar occurs at the c. of life. The demise of ovarian activity reacts on the ganglionic system, half paralyzes it, and thus leads to a greater development of heat, and to its irregular emission from the surface. Flushing, like a fit of ague, has a period of concentration, a hot stage, and one of perspiration; but, as in ague there is often no first stage, so flushing frequently comes first, and often, without any previous congestion of the capillaries, perspiration is seen continually oozing out of the skin, where it stays until it is wiped away or rolls off. Why continued perspirations are so frequently met with at the c. of life, and how they preserve women from worse evils, cannot be answered without some inquiry into the physiology of the skin.

With regard to the extent of the surface operated upon by nature, the entire surface of the body being estimated at 14 square feet, it has been calculated that there are 10,000,000

pores through which perspiration flows, besides the openings by which the sebaceous glands emit their lubricating products. Lavoisier estimated that, in 24 hours, 20 oz. of perspiration were lost by the skin. Dr. Southwood Smith has shown that a robust man, working hard in an intense heat, may lose 5 lbs. of his weight in an hour, so that the emaciation of those who perspire much is to be understood as well as the *embonpoint* of those who perspire little.

Long ago Sanctorius established that "Insensible perspiration alone discharges much more than all the other evacuations put together." Valentin found that his average hourly quantity of perspiration amounted to 463·3 grains, and that by walking up and down hill, to sweat copiously, more than four times this quantity was excreted, or 2048·8 grains. The average amount of water in the human blood is 78 per cent., so that sweating gets rid of its redundant portion; but with regard to the other components of perspiration, it is worth while to place on record the researches lately undertaken by Dr. Favre, of Paris, on 110 lbs. of perspiration, obtained from a healthy man;—14 litres or 28 lbs. of perspiration gave the following results:—

		Pour 14 Litres.	Pour 10,000
		Grammes.	Grammes.
Solubles dans l'eau.	{ Chlorure de Sodium . . .	31,327	22,305
	{ Chlorure de Potassium . . .	3,412	2,437
	{ Sulfates Alcalins	0,161	0,115
	{ Phosphates Alcalins . . .	Trace	Trace
	{ Albuminates Alcalins . . .	0,070	0,050
Solubles dans l'eau acidulé.	{ Phosphates alcalino-terrena	Trace	Trace
	{ Débris d'Epiderme	Trace	Trace
	{ Lactates Alcalins	4,440	3,171
	{ Sudorates Alcalins	21,873	15,623
	{ Urée	0,599	0,428
	{ Matières grasses	0,191	0,177
	Eau	13,938,027	9,955,737

Dr. Favre draws the following conclusions from his researches:—

1. That the materials of perspiration are almost entirely soluble in water.

2. That chlorure of sodium constitutes the chief solid constituent of perspiration, the alkaline sulphates and phosphates being in very small proportion. In this respect, perspiration differs much from urine, as will be seen from the following analysis of similar quantities of each:—

		Perspiration 14 litres.		Urine 14 litres.
Chlorides	. grammes	34,639	grammes	57,018
Sulphates	. „	0,160	„	21,709
Phosphates	. „	Trace	„	5,381

3. Lactic acid, combined with alkalies, exists in the perspiration. It would be worth while ascertaining whether its quantity be augmented or not in the acid perspirations of lying-in women, in the sweats of over-lactation, or in those of the c. of life.

4. Sudoric acid combined with alkalies, a hitherto unnoticed component of perspiration, is one of its principal elements. The composition of this acid is somewhat similar to that of urea, which is not normally found in perspiration; but when perspiration is stopped, as in the experiments of Seguin and Anselmino, the kidneys may transform sudoric acid into uric, and excrete it as urate of ammonia.

5. The existence of urea in perspiration completes the analogy of this fluid with urine—both containing strongly oxidized substances.

6. Perspirations of the same subject, though taken at different times, do not vary in composition, but when the fluid taken during the first half-hour of the experiment is compared with that taken during the 2nd or 3rd half-hour, a larger quantity of the mineral salts is found expelled during

the latter periods. The proportion of water to the other components of perspiration does not seem to vary.

At the c. of life is the quantity of perspiration increased, or are only some of its components altered in their amount?

Does perspiration vary in different subjects?

In complaints which are attributed to checked perspiration, is its amount lessened, or is there a diminished secretion of some of its constituents?

Does cold merely act on the nervous expansions of the skin, and cause disease by interfering with the electrical currents continually proceeding from the surface?

Leaving these unanswered questions, it is not difficult to understand that as the skin is the most easily moved of all the safety valves of the system, it is most frequently influenced by the c. of life; while the small proportion of solid removed from the blood by sweat, explains why this forms an ineffectual crisis, the necessity for which is ever recurring, unless other changes have been effected. The critical nature of the perspirations occurring at the c. of life, is shown by their appearance after sudden suppression of the m. flow, after diarrhoea or leucorrhoea. Thus in Eliza C., aged 60, the m. flow suddenly ceased at 43, after getting her feet wet; and the perspirations were often so intense that the bed-clothes could be wrung.

Mary M., aged 55. The m. flow came at 19 and left at 30 by a flooding; she has ever since been subject to flushes and perspirations, by which her health has been preserved. After cessation the perspirations generally diminish, though I have noticed drenching ones to return 5 years after, in consequence of great anxiety, and 29 years after in a strong healthy old woman of 67. The perspirations do not always cover the whole body, but are limited to certain portions. Two of my patients always wear flannel at the pit of the stomach, because they perspire so much there that their clothes become saturated. Like Tissot, I have seen gentle perspirations converted into sweats for a few days every month.

IV. RELIEF AFFORDED BY MUCOUS FLOWS.—The following table shows the frequency of mucous flows at the c. of life :—

TABLE XVII.

Frequency of Mucous Discharges amongst 500 Women at the c. of Life.

Nature of Mucous Flow.	No. of Cases.
Leucorrhœa at irregular intervals	146
Monthly leucorrhœa	12
Repeated vomiting of mucus	31
Water-brash	5
Frequent diarrhœa	45
Monthly diarrhœa	5
Total	244

These mucous discharges must be considered as taking the place of the m. flow, for they were usually preceded by the same symptoms, particularly when they came periodically, a fact already noticed by B. de Boismont. The critical nature of these discharges shows that they may require to be restrained, though not stopped. Of 260 women in whom the m. function had ceased, 143 had never been subject to leucorrhœa; of the remaining 17—

The vaginal secretion was increased at cessation in .	77 cases.
It was diminished in	24 „
It remained stationary in	16 „

With regard to periodical leucorrhœa. In one case this occurred regularly every month for a year, for 18 months in another, in several for 2 years, and in one for 7 years. Most of these cases occurred to women in whom the m. flow had suddenly ceased.

V. RELIEF AFFORDED BY HÆMORRHAGES.—The extent to which women are relieved by hæmorrhages is shown by the following table.

TABLE XVIII.

Comparative frequency of Hæmorrhages at the c. of life amongst 500 Women.

Varieties of Hæmorrhage.	No. of Women.
A terminal flooding	82
Successive floodings	56
Bleeding piles	24
Entorrhagia	20
Epistaxis	12
Hæmoptysis	8
Cerebral hæmorrhage and apoplexy . . .	6
Hæmatemesis	4
Hæmaturia	1
Bursting of varicose veins	3
Bleeding from external auditory canal . .	4
Cutaneous ecchymosis.	3
Bleeding from a temporal vein	1
Total	208

Vicarious menstruation is rare at the c. of life, but a bloody discharge from the nipples has been known to occur every month for 5 years after the m. flow had ceased; and Dr. Semple has recorded the case of a woman, aged 80, who, every other month, bled from the nose, or menstruated as in youth. These various hæmorrhages are more or less successfully critical. The floodings at the c. of life prevent serious illness, and afford time for the slow readjustment of the system. Successive floodings occur as often as the frame is overloaded by blood, returning at longer intervals and to a less amount.

FINAL RESULTS OF THE C. OF LIFE.

Having shown the nature of the phenomena which characterise the c. of life and tend to remodel the female organism, I shall now briefly sketch the results obtained. M. Flourens says, "from 40 to 55 is a period of *invigoration* for both sexes,—a period in which the deep interior work proceeding in all our tissues renders them firmer, and thereby ensures a more perfect performance of all the functions. This change is insensibly worked out in man, but in woman the passage is often perilous, and the result is more marked. The great improvement in the general health subsequent to the c. of life is a notorious fact." Dr. Day, in his valuable work on "Diseases of Old Age," has not failed to note the true character of the changes taking place at cessation, for he shows how climacteric decay is less frequently observed in women than in men, not only because women lead a less tumultuous life, but because their constitution has been so remodelled by the c. of life that the causes of this decay have less hold over them." The immense importance of this change on the subsequent lifetime of women cannot be too highly rated, and as it is well got over or full of suffering, so will the subsequent lifetime be healthy or otherwise. It is a *final* settlement, for if it does not bring up pathological seeds fatal to the system, the rest of life is generally passed in uninterrupted health. This final change causes longevity to be attained more frequently by women than by men; but the invigoration of health is bought at some sacrifice of feminine grace. The appearance becomes somewhat masculine, the bones project more than usual or become buried in fat, the skin is less unctuous, and tweezers are sometimes required to remove stray hairs from the face.

The effects of this disturbance of ovarian action on the mental faculties towards the first part of the c. of life have been already alluded to. There is almost always some

amount of confusion and bewilderment, which seems to deprive women of the mental endowments to which they had acquired a good title by 40 years' enjoyment. They often lose confidence in themselves, are unable to manage domestic or other business, and are more likely to be imposed on either within or without the family circle. When the change is past, the mind emerges from the dark clouds in which it has seemed lost. Thankful that they have escaped from real sufferings, women cease to torture themselves with imaginary woes. They feel the ground grow steadier underfoot, they are less dependent on others,—for, like the body, their mental faculties assume a masculine character. The c. of life does not give talents, but it imparts a firmness of purpose to bring out effectively those that are possessed, whether it be to govern a household, to preside in a drawing-room, or to thread and unravel political entanglements. When women are no longer hampered by a bodily infirmity periodically returning, they have more time at their disposal, they are less subject to be led astray by a too ardent imagination, or by wild flights of passion, and the faculties of the mind may become endowed with new vigour.

The disturbance of regular ovarian action during the first part of the c. of life sometimes tells unfavourably on woman considered as a moral agent. The every-day occurrences of life may betray a certain want of principle, contrasting in a striking manner with the rectitude of previous habits. There is often unusual peevishness and ill-temper, sometimes assuming the importance of moral insanity. Some make their once peaceable homes intolerable by their ungovernable temper; others bear hatred, for a time, to the long-cherished objects of their affection. Some, in the midst of affluence, indulge a propensity for stealing. Four women, at this period, confessed to me, that they were obliged to have their children removed, for fear they should murder them; others are tempted to commit suicide. Unless there be some strong hereditary taint, all

these forms of moral insanity are susceptible of being cured by judicious treatment, as I shall amply show hereafter, and when the c. of life is passed, the habitual rectitude of moral vision returns. Doubtless the subsidence of ovarian action deprives one form of love of those strong emotional impulses which gift the passion with such fearful energy ; but although the heart becomes at last able to listen to the head, still love rules paramount in the breast, and whether called charity, friendship, conjugal or parental affection, it engrosses the thoughts, and failing all other forms and opportunities of love, religion takes a stronger hold.

When safely anchored in this sure haven, a woman looks back on the time when her health was disturbed by ever-recurring infirmities, by pregnancy with its eccentricities, by the perils of child-birth, and the annoyances of nursing. From the tranquillity she has attained, she may well revert to the long years when love, jealousy, and their attendant emotions often harrowed up her soul, presenting to the mind everything through the delusive prisms of passion. She will find how much her existence is changed from what it was, and will understand the saying of Madame de Deffand—*“Autrefois quand j'étais femme.”*

I have noticed the influence of a weak constitution, as explaining early cessation in a few cases ; but in other respects, I have considered women as if they were all made of the same stuff, and after the same pattern. The modifications brought about by difference of constitution and temperament, will lead me to discuss in the next chapter the causes of disease at the c. of life. I shall merely state, that favourable effects often follow cessation in weak constitutions, and that delicate women, enervated by menstruation, often then take a new lease of life ; and having concluded what relates to the c. of life in health, I shall now treat of the theory and practice of diseases of the same period.

CHAPTER III.

GENERAL PRINCIPLES OF PATHOLOGY AT THE CHANGE OF LIFE.

A REFERENCE to the works written on diseases of the c. of life by Gardanne and Dr. Menville would show the reader, that like all who have written upon the subject, they consider diseases of the critical time all which may afflict a woman after her 50th year. This is perfectly absurd, for many diseases may equally occur at 60 or 30, without any connexion with a particular period. Again, as women grow old, diseases attack them, not because they are women, but because they are advanced in years, such as affections of the heart and of the arteries, softening of the brain, &c. Surely those should only be called "diseases of the c. of life" which occur for the first time, or with great aggravation during that period, variable as it is in each individual, but often comprising the 3 years previous to, and the 5 years subsequent to, cessation.

The affections of the c. of life sometimes come on before any marked irregularities in the m. flow. Thus, Mrs. B., a tall, portly lady, aged 50, is said to be still regular, but for the last few months she has suffered from burning flushes, and her hands often become scarlet to the tips of her fingers. Some have merely flushes and slight perspirations for about 3 to 5 years after cessation, at the end of which time severe symptoms occur, and I attribute them to the c. of life, because they are exactly similar to symptoms frequently occurring in immediate connexion with cessation. Sometimes diseases of the c. of life occurred from the sudden interruption of the heats and flushes which had hitherto proceeded unin-

interruptedly ; at other times the skin continued to act as the safety valve of the system, until the health broke up under the aggression of some mental or physical shock. In some instances no cause could be traced, but the advent of disease frequently coincided with an imperfect m. nusus, indicated by abdominal pains and a m. flow, which, although very slight in quantity, and recurring 3 or 5 years after cessation, clearly indicated the nature of the attendant symptoms. Gout, rheumatism, or nervous affections, first occurring at the c. of life, may continue through the remainder of existence.

It is well known that, at some time or other of life, each organic apparatus becomes a normal or abnormal focus of action for the general circulation ; for instance, the genital organs at puberty and cessation. Each well-marked period has its own particular stock of pathological calamities, and if the diseases common to one epoch do not cease at the beginning of the next, they generally continue during the whole period, or in other words, critical times are *perfect*, leading to the renewal of health, or *imperfect* and determining a succession of ailments. The c. of life not only determines some diseases for the first time, but finding also the germs of others, such as gout, cancer, &c., it gives them an additional impulse so as to renew health, or curtail life. Previous authors affording little information, I have endeavoured to obtain a correct bead-roll of the infirmities entailed by the c. of life, and have set down very minutely whatever could be detected morbid in 500 women. The following table, therefore, shows the comparative degree of frequency of morbid symptoms at the c. of life :—

TABLE XIX.

*Showing the relative frequency of Morbid Liabilities
at the c. of Life in 500 Women.*

Nervous irritability	459	Dorsal pain	226
Flushes	287	Epigastric faintness	220
Pseudo-narcotism	277	Headache	208

Abdominal pain	205	Diarrhœa from 3 to 6 times daily	
Perspirations	201	for years	7
Leucorrhœa	146	Intercostal neuralgia	6
Hysterical state	146	Paraplegia	6
Flooding once or repeatedly	138	Jaundice	6
Sick headache	92	Apoplexy and hemiplegia	6
Sweats	84	Supposed pregnancy	6
Piles, not bleeding	62	Colics habitual for years	6
Biliousness, obstinate	55	Nettlerash	5
Epigastric pain, or strange sensa-		Ovarian pain, constant	5
tions	49	Waterbrash	5
Phosphatic and lithic urine	49	Epilepsy, increased	5
Diarrhœa, irregular	45	Prolapsus of womb	5
Debility, intense and long con-		Cancer of womb	4
tinued	41	Inflammation of vagina	4
Chloro-anæmia	40	Bronchitis	4
Dyspepsia	37	Inability to retain urine	4
Remittent menstruation	33	Laughing and crying fits only	
Vomiting, repeated	31	since cessation	4
Abdomen much swollen	26	Labia, repeated inflammation of	4
Fainting away repeatedly	25	Numbness, pricking and loss of	
Piles, bleeding	24	sensation in arms and hands	4
Constipation, obstinate	23	Uterine fibrous tumours	4
Entorrhagia	20	Hæmorrhage from ears, increased	4
Œdematous legs	19	Prolonged fits of unconsciousness	4
Undetermined cutaneous erup-		Vomiting of blood	4
tions	18	Polypus of womb	4
Globus hystericus, only since ces-		Erysipelas	4
sation	17	Sciatica	4
Regular monthly pains without		Epilepsy, brought on	3
m. flow	16	Delirium	3
Insanity	16	Pus in motions	3
Dry flushes	14	Cutaneous ecchymosis	3
Mammary irritation and swelling	14	Prurigo	3
Perspirations, cold	13	Puffed face	3
Leucorrhœa, monthly	12	Inflammation of legs, with great	
Epistaxis	12	distension of veins	3
Inflammation, or ulceration of the		Eczema	3
neck of the womb	11	Ovarian tumours	3
Deafness	11	Aching under nails	3
Follicular inflammation of the		Inflamed rectum	3
vulva	10	Hysterical fits, only since cessation	3
Difficulty and pain in passing		Hemicrania	3
urine	9	Consumption aggravated	3
Hysterical asthma	8	Bleeding from varicose veins of	
Intense hysterical flatulence	8	leg—in one case 3 times	3
Hæmoptysis	8	Eczema increased	2
Monthly headaches	7	Monthly blood in motions for 6	
Rheumatism of joints	7	months	2
Ulcerated leg	7	Boils in seat	2

Aortic pulsation	2	Hysterical paralysis of arms . . .	1
Legs burning and painful	2	Falling-off of all the nails . . .	1
Intensely hot hands	2	Peritonitis	1
Abscess in arm-pits	2	Chronic otorrhœa	1
„ fingers	2	Inflamed eyes	1
„ neck	2	Toothache	1
Gout	2	Morbus cordis	1
Peeling of nails	2	Shingles	1
Erectile tumour of the meatus		Herpes circinatus	1
urinaris	2	Mammary cancer	1
Brow ague increased	2	Varicose veins brought on . . .	1
„ brought on	1	„ aggravated	1
Hæmaturia	1	Bleeding from frontal vein . . .	1
Monthly failure of strength. . .	1	Limpid secretion from breast for	
„ hysteria	1	4 years	1

In my first edition, I stated that the real diseases of the c. of life were the morbid exaggeration of some phenomena natural to cessation. Thus, as flooding occurs as a natural phenomenon at cessation, it may be attended by circumstances which may constitute it a disease. As increased perspiration is a natural phenomenon of cessation, so it may occur to a morbid amount under the form of continued sweating. The mild forms of cardialgia are frequent accompaniments of cessation; therefore, the severer forms of the complaint may be expected. Cessation is almost always attended by slight and varied cerebral disturbance; therefore, severe nervous affections may frequently be expected. The foregoing table admirably confirms the views I have long entertained, for it shows that the real diseases of the c. of life are the first 25 on the list, whose occurrence has been so frequent that they may be predicted, prevision being the only criterion of the excellence of science, since it permits prevention. After the first 25, the frequency of other diseases falls below 5 per cent., for they either form special varieties of the more common complaints already enumerated, or, like cancer and gout, they may occur at other times besides the c. of life. Sometimes, also, by the singularity of their nature and by the rarity of their occurrence, they are evidently shown to be personal contingencies indicating how the impetus of morbid action was most felt by

the weakest organ. The table likewise shows that the diseases to be really feared at the c. of life are not so much cancer and other organic diseases of the ovaries and womb, with which women are continually frightened, as the neuralgic affections of the cerebro-spinal and ganglionic systems, and that gastro-intestinal affections are more to be feared than floodings.

In commenting on the diseases enumerated in the previous tables, I shall class them according to the system of organs of which they constitute functional or structural complaints; throwing into a last chapter those diseases which cannot be included under previous heads.

The causes ascribed to diseases of the c. of life are as follows :—

I. Weakness of constitution.—II. Temperaments.—III. Constitutional disorders.—IV. Weakness of particular organs.—V. Uterine affections.—VI. Unusual suffering at puberty and at m. periods.—VII. Sudden cessation.—VIII. Disease and abuse of the reproductive organs.—IX. Social position.

I. WEAKNESS OF CONSTITUTION.—The best way to avoid the dangers of this critical time is to meet its approach with a healthy constitution. A marked want of strength prevents the regular succession of the vital phenomena on which I have shown the c. of life depends, leads to continued debility, to a tendency to faint, to chlorosis, to erratic nervous disorders, and complaints remain chronic because there is not stamina enough to carry them briskly through their stages.

II. TEMPERAMENTS.—I have stated that women of decidedly lymphatic temperaments often derived marked benefit from the c. of life. Their colder nature is less liable to be disturbed by bilious and nervous disorders, while the blood that was wont to be eliminated is turned to the improvement of the frame. Women of a sanguine temperament are naturally most liable to plethora, and therefore to floodings, hæmorrhages, and apoplexy; but if they are most subject to dangerous

diseases, they are most amenable to treatment, and speedily improve by active measures when judiciously applied. The preceding table shows a decided tendency to bilious and gastro-intestinal affections at the c. of life. These affections were severe in women of a bilious temperament. Calomel and blue pill may long be given for an habitually torpid liver with little benefit, unless combined with the free use of alkalies, under the form of mineral waters. I therefore agree with Gardanne, that women of a marked biliary temperament are likely to suffer much from bilious affections, and from the various forms of insanity, if the nervous be associated with the bilious temperament, as in some of my worst cases. Dusourd is right in saying that women of a nervous temperament suffer much. They suffer more than all, particularly during the dodging time. They are as liable to flooding as the plethoric, without being so amenable to treatment. The floodings of the nervous are the result of nervous erethism. In them, simple things bring on inordinate reactions, and the common functions of life are performed with singular eccentricities. When the c. of life is well over, the nervous temperament becomes blended with the sanguine, and health improves.

III. CONSTITUTIONAL DISEASES.—It is evident that all constitutional affections will be increased by the c. of life, and that an impulse will be given to cancer, gout, or consumption.

IV. WEAKNESS OF SOME PECULIAR ORGAN OR APPARATUS.—They are few, who have not a weak organ. This becomes habitually congested, and sometimes solicits the earliest deposit of cancer.

V. UTERINE DISEASE.—For a long time after cessation, the womb is congested every month, as is proved by the frequency of monthly abdominal pains and of leucorrhœa. This state of congestion, without the usual adequate relief, is eminently calculated to give rise to inflammatory affections of the neck of the womb during the dodging time, and I believe this to occur more frequently than is represented in the last table.

Should cancer pervade the system, a morbid condition of the womb at the c. of life increases its liability.

VI. UNUSUAL SUFFERING AT PUBERTY AND M. ECCENTRICITIES.—The following table shows at a glance the morbid liabilities of puberty compared with those of the c. of life; explains to a certain extent the occurrence of other complaints at those periods only, and how the perils of cessation may be inferred and measured by those which have attended puberty:—

TABLE XX.

*Comparative Morbid Liabilities at Puberty
and at Cessation.*

PUBERTY.	CESSATION.
Headache — Frequent.	Headache — Frequent.
Sick headache — Frequent.	Sick headache — Frequent.
Pseudo-narcotism — Frequent.	Pseudo-narcotism — Frequent.
Minor forms of hysteria — Frequent.	Minor forms of hysteria — Frequent.
Hysterical attacks — Rare.	Hysterical attacks — Rare.
Delirium — Very rare.	Delirium — Very rare.
Irregular temper and mild forms of moral insanity — Frequent.	Irregular temper and mild forms of moral insanity — Frequent.
Epilepsy — Frequent.	Epilepsy — Very rare.
Gastrodynia — Mild forms frequent.	Gastrodynia — Severe and mild forms frequent.
Fainting — Common.	Fainting — Not uncommon.
Chlorosis — Very frequent.	Chlorosis — Frequent.
Lumbo-abdominal neuralgia — Very frequent.	Lumbo-abdominal neuralgia — Very frequent.
Neuralgia of limbs — Very frequent.	Neuralgia of limbs — Very frequent.
Mammary neuralgia — Not uncommon.	Mammary neuralgia — Not uncommon.
Flooding — Rare.	Flooding — Common.
Epistaxis — Frequent.	Epistaxis — Uncommon.
Piles — Unobserved.	Piles — Frequent.
Leucorrhœa — Frequent.	Leucorrhœa — Frequent.
Cutaneous eruptions — Frequent.	Cutaneous eruptions — Sometimes.
Gout, its irregular forms — Sometimes observed.	Gout, its manifest attacks — Not unfrequent.
Rickets — Not uncommon.	Rickets — Not noticed by me, but by B. de Boismont, and pretty frequently by Gendrin.
Spinal deviations — Very frequent.	Spinal deviations — Very rare.

Other diseases which precede the first appearance of men-

struation may likewise be expected to precede its cessation. Baron Alibert informed me that he had observed some cutaneous eruptions appear twice only in life—once before the first appearance of the monthly flow, and once at its cessation. B. de Boismont, and others, likewise notice the appearance of hysteria and epilepsy before these two important epochs, the patients' life having been free from these diseases during the intervening period. Sir H. Marsh states having several times noticed that women, in whom the establishment of puberty had been preceded by repeated epistaxis, experienced the same accident as a prominent symptom of cessation. In my own practice, I have several times seen puberty and cessation preceded and attended by an abundant eruption of boils, by long-continued otorrhœa, frequently by continued diarrhœa, and still oftener by a great amount of pseudo-narcotism and hysteria in cases where there was little or none during the persistence of the monthly function, child-bearing, or lactation.

Spinal deviations slightly developed at puberty may become very marked at cessation, as in a case given by B. de Boismont, where a lady, comparatively straight, became deformed at the c. of life. The fact of the m. periods having often been unusually painful, is a reason to fear that the c. of life will be fraught with infirmities, and the same applies to those in whom the m. flow has been very irregular, and liable to deviations. Thus B. de Boismont relates the cases of two women, in whom the critical discharge took place from the mouth, even after they had borne children. At the c. of life, one became rickety, the other had ascites. In some, the liability to disease at this period, might be referred to the predominance of a nervous temperament; in others, it depends on hidden peculiarities, which render the performance of the various acts of the reproductive function calamitous through life.

VII. SUDDEN STOPPAGE OF THE M. FLOW.—It was logical to suppose that a drain, lasting for 32 years, could not suddenly

cease without causing serious illness ; and Meissner, with many others, attribute to this cause the most disastrous effects, though without truth ; otherwise sudden cessation would be most frequent in those who suffered most at the c. of life. This is not the case, for in 383 women in whom the m. flow had ceased, 223 had suffered much, 121 little, and 39 not at all. Sudden cessation occurred in each class in the following proportion :—55 out of the 223 who suffered most, 31 out of the 121 who suffered little, and 23 out of the 39 cases who did not suffer ; so that while sudden cessation only occurred in about one-fourth of the severest sufferers, it occurred in about two-thirds of those who did not suffer at all. On studying the 39 cases, I was struck by their presenting a singular absence of all m. disorders. In many the m. flow began suddenly, appeared regularly, without disturbance, and ended in the same way.

Jane B., aged 55. The m. flow suddenly left at 32, without other ill effects than long-continued debility. Its first appearance was sudden, and menstruation had been painless. The current belief in the dangers of sudden cessation is grounded on some isolated cases in which it proved dangerous, owing to the action of other causes : thus, in two plethoric subjects, hemiplegia was induced ; but alone it will not cause diseases of cessation, because the system is equally suddenly relieved by some critical discharge, and most frequently by well-sustained perspirations.

VIII. DISUSE OR ABUSE OF THE REPRODUCTIVE ORGANS.—Gardanne and other writers countenance the popular prejudice that the unmarried are most liable to flooding, to cancer, to ovarian and uterine tumours at the c. of life, but there is no truth in the assertion. The single pass through this period without more trouble than the married—and, so far as I can ascertain, suffer less than other women. Gardanne likewise asserts that prostitutes suffer much at this epoch, an assertion utterly groundless, for those seeds of moral worth, which cannot be

stifled even in the most degraded, prevent their carrying on their pursuit for more than three years on an average; so that they have seceded from the ranks of infamy long before the c. of life.

IX. SOCIAL POSITION.—I believe with Dusourd, whose practice lay in an agricultural district in the south of France, that peasant women suffer little at this period. They belong to the *genus inirritabile*, and are therefore little liable to nervous disorders. Their health is generally good when the c. of life comes on; flooding is frequent, but effectually critical, and they take little heed of the flushes and perspirations which annoy the spoiled daughters of civilization. The poor of large towns suffer much at this epoch. The necessity for working hard, the anxieties of poverty, the impossibility of escaping even for a few hours in the day the annoyances of children, increase the sufferings of the poor at the c. of life. Certain occupations have a similar effect; thus, Auber says that washerwomen suffer more than others, on account of the vicissitudes of temperature to which they are exposed. The close, damp, and heated rooms in which book-folders, catgut makers, and others are obliged to work, increase the sufferings of many; but He, who ever tempers the wind to the shorn lamb, has so disposed it, that the necessity for working hard is in itself a preventive and curative of nervous affections at this period, and, on the whole, the poor suffer less than the rich. Luxury is the hot-bed of nervous affections. They grow there in such profusion, and run into such strange eccentricities, that pathologists have given up the idea of completing their catalogue. Of what use is leisure to practise all the appliances of hygiene, without the resolution to use them? Many of the poor are not forced to work in atmospheres so injurious as those of the heated ball-rooms frequented by the wealthy, who do not sufficiently avail themselves of the possibility of visiting different medicated springs, at once the most agreeable and effectual mode of

restoring health at the c. of life. In going through my numerous cases, to discover why some women suffer so much and others so little at this period, I came to the conclusion that it does not so much depend upon the strength, original or acquired, which the system enjoys, and which is *constitution*; nor on the visible predominance of one set of organs over the other, which is *temperament*. Neither does it depend on the m. flow ceasing early or late, nor on women being single or married, rich or poor, but on a peculiar susceptibility of the nervous system—a condition which, though hidden from the eye, even if assisted by the microscope, is evident from the manner in which it responds to the reproductive and all other stimuli. Those who suffered much at the c. of life had often suffered much at puberty and at m. periods; while these had seldom been attended with distressing symptoms in women who suffered moderately at cessation; and amongst the 39 cases where there was no suffering, there was a similar immunity at puberty and the m. epochs. I, therefore, conclude that the diseases of the c. of life, like those of puberty, are principally to be ascribed to the nervous system being unable to tolerate the stimulus imparted to it by the reproductive organs, for when the nervous system is well-tempered, this stimulus acts as an improver instead of a disturber of health. Vital acts, however, are never found cut and squared with mathematical precision, as they are represented by some writers; there are, therefore, exceptions to this rule, and I have had patients who suffered much at cessation, whose previous good health had been uninterrupted. These remarks are a fit introduction to what I have to say respecting the theory of the production of diseases at the c. of life; for of what use is a long enumeration of medical facts unless it lead to a good theory, explaining their production and preventing their occurrence?

The more abundant quantity of blood, or its defective

qualities, will account for congestions of organs, for hæmorrhages, and for other flows ; but a large proportion of the nervous complaints of the c. of life are unaccompanied by plethora, and can only be explained by a disturbance in the equilibrium of the nervous forces, by which the frame is energised. For 32 years the womb is a powerful centre of attraction, causing it once a month to be the focus of strong blood-currents from all parts of the body. A strong mental or pathological perturbation sometimes so divides the blood-currents, that while a portion is directed to the womb, the rest is sent into some weak organ, which becomes congested, if unable to throw the blood off from its surface. The same occurs during the c. of life. Part of the blood is still every month directed towards the womb, which is thereby congested, while disease may be induced by the monthly current setting in towards a weak organ. After 3 or 4 ounces of blood have been retained for a few months, plethora may be induced, if the nutritive force is unable to use the blood to strengthen the interior framework, or to produce fat. Plethora once induced, the system is oppressed and rebels, and if the constitutional powers are sufficiently strong, they throw off the blood, but if they are below par, they suffer the blood to stagnate in congested tissues.

It is, however, unreasonable to attribute to plethora most of the cerebro-spinal and ganglionic affections of the c. of life. Thus formerly when women suffered from headache, giddiness, drowsiness, and dulness of intellect, they used to be bled, cupped, or leeches ; but though this nervous condition, which I call pseudo-narcotism, may co-exist with plethora, it is not proportionate to it, and may often be found in women who have become chlorotic at cessation, as well as in those whose amount of blood is well apportioned to the wants of the system. To explain, therefore, the occurrence of all the diseases of the c. of life, it is necessary to take into consideration the *altered* condition of the ganglionic nervous

system during the first and second parts of this period. The condition of the ganglionic system cannot be materially altered without inducing cerebral disturbance, and this must be admitted before diseases of women can be understood. In searching how it is that ovarian disturbance induces morbid action, it must be remembered that, during health, the effects of the monthly crisis on the female economy should not only be considered, but the continued action of the ovaries on the system. The results of this influence, when morbidly exerted, are often evident long before the first m. flow, and long after cessation. When a girl of 10 years of age is more or less in a constant state of pseudo-narcotism, without any sign of the well-recognised forms of cerebral or gastric disease, the premature morbid influence of the ovaries on the cerebral system is manifest, and Landouzy has rightly admitted that the ovaries may produce hysteria, long before the appearance of the first m. flow or the imagination of sexual ideas. I have seen girls affected with pseudo-narcotism 8 years previous to first menstruation, and women suffering from it 10 years after cessation. When, therefore, I do not find it explained at the c. of life by gastric, hepatic, or cerebral disease, I consider it indicative of cerebral disturbance caused by perverted ganglionic influence, the most frequent result of disturbed ovarian action, not only at puberty and cessation, but at each m. period and during pregnancy and lactation. This perversion of ganglionic nervous power at the c. of life is the result of increased ovarian irritability previous to the subsidence of specific ovarian functions. In many women, the excessive ovarian irritability, evident by so many symptoms, cannot but react on the ovarian plexus, and thereby on the ganglionic nervous centre. In many, ovarian life is not extinguished and the ovarian plexus condemned to inaction, without the abdominal federation of ganglia and plexus, feeling the want of that specific influence which had ruled the system for the previous 32 years. Then occurs an

irregular distribution of those nervous currents which determine the movements of the different fluids,—the ataxic nervous symptoms, which Sydenham dilates on when treating of hysteria. Then occur all sorts of erratic nervous pains, as well as the anomalous symptoms referred to the pit of the stomach, and the cerebral disorders of which I shall fully treat hereafter.

I have stated, that out of 383 women in whom the m. flow had ceased, 223 suffered much, 121 little, and 39 not at all; yet I do not consider that the proportion of 39 to 383 gives a fair idea of the manner in which the c. of life tells upon women, for the non-sufferers having nothing to complain of, seldom come under medical notice. The most frequent forms of disease at the c. of life may be gathered from the following table; but the reader will bear in mind that I have been consulted in many unusually severe cases, on account of my being known to have given particular attention to the subject.

TABLE XXI.

Nature of the affections of 500 Women at the c. of Life.

Nature of Disorder.	No. of Women.
Uterine affections	463
Gastro-intestinal affections	354
Cutaneous affections	705
Diseases of nerves	487
——— ganglionic system	406
——— the cerebro-spinal system	1272
Various affections	43
Total	<hr/> 3730

This would give to each of the 500 women 7 distinct modes of suffering, the prognosis of which, with the exception of cancer, organic diseases, and the worst forms of mental suffering, is not serious; but they are often tedious, ever-recurring, and destructive of peace and happiness.

CHAPTER IV.

GENERAL PRINCIPLES OF TREATMENT AT THE CHANGE OF LIFE.

IF there be diseases of the c. of life, and this has, I think, been sufficiently proved in the preceding chapter, there must be general principles of treatment. The natural history of the reproductive function has enabled me to state the complaints which are to be expected at this period, and will also point out their rational treatment.

If nature bled, in different ways, 208 women out of 500, it evidently shows that this spontaneous effort of a hidden force to relieve the system often deserves imitation. If 326 out of 500 suffered from sinking at the pit of the stomach, from fainting, debility, and chlorosis, it shows that stimulants and strengthening treatment may be as indispensable at the c. of life as at puberty. If 75 out of 500 had frequent diarrhœa or constipation at this period, it shows that purgatives may often be safely exhibited. If 285 out of 500 had unusual perspirations or sweating, it is a positive proof of the utility of sudorifics at this epoch. If 134 out of 500 suffered continually from biliousness, jaundice, waterbrash, vomiting, and dyspepsia, it is clear that alkalies will be often useful. If in 277 out of 500 the nervous system was actually steeped in a more or less intense state of stupor, it is an indication of the great utility of sedatives. If, in many, the organ most prone to disease suffered most at this period, does it not show the necessity of discovering this weak organ from the patient's previous history, so as to give it protection?

In exhibiting remedies at this period, it is necessary to guard against a prejudice firmly rooted in the minds of many,

that the c. of life is synonymous with old age, for the principles of treatment applicable to diseases of old age will not suit those of the c. of life. Then, as at puberty, there may be vital energy, but latent and oppressed, so that bleeding and lowering measures sometimes develop an unexpected amount of strength. The preceding modes of medication are more or less applicable to all diseases at the c. of life; I shall therefore treat of them generally, so that when particular complaints come to be considered, general principles may be referred to. I thoroughly believe in the efficacy of the modes of treatment thus suggested by the study of natural phenomena, for several cases recorded in this work will show how, by following the suggestions of nature, I have been able, in a few days, to relieve patients who had been suffering for years. With the exception of those afflicted with cancer or structural affections, the number unaffected by treatment is extremely small, though many, satisfied with a first instalment of recovered health, will not allow a perfect recovery to be made. They would rather bear their accustomed evils than submit to the tedium of following out a systematic plan; they oppose the stubbornness of prejudice to advice founded on fully proved facts, and then impertinently talk of the "deplorable inefficacy of medicine," when in fact *they will not be cured*.

BLEEDING.—The *natural history* of menstruation informs me that at its cessation, nature has sought relief by hæmorrhages from different parts of the body in 208 women out of 500. As they are often relieved by the loss of blood, the natural process is evidently worthy of imitation, and it has been extensively copied by illustrious medical men of former times, and lately by Tissot, Hufeland, and Meissner. Fothergill and Heberden were convinced that sudden deaths had greatly increased in England since bleeding at the spring and fall had gone out of fashion. Whatever may be the truth of this assertion, I am convinced that the sufferings of many women are aggravated from bleeding being so seldom resorted

to ; notwithstanding the sanction of great names, and its being commended by the facility of understanding that the well-timed subtraction of a small quantity of the 25 lbs. of blood circulating in the veins of women accustomed for more than 32 years to lose periodically some of the same fluid, is the best means of preventing or curing diseases originating in the cessation of menstruation, until the constitution has lost the habit of making so much blood, or can safely dispose of it. Bleeding has been abandoned, not because it was proved injurious, but because diseases of the c. of life have not received due consideration, and the profession in England has altogether set itself against bleeding. Writing in 1840, Sir H. Holland stated, that "current opinions and prejudices are wholly on the side of bleeding," and "that a physician needs all his firmness to decline the practice." How the tables are turned ! Those who, in their dogmatic writings, advocate the utility of bleeding in certain well-chosen cases, now conform in practice to the general prejudice, and never bleed. One may for months attend the medical practice of a large hospital without seeing a patient bled. Few in England bleed women at the c. of life, for only 5 of the 500 patients had been bled at this epoch, and 10 cupped. No pathologist denies that hydraulic effects are produced by bleeding, and that by diminishing the quantity of blood, we slacken the energy with which it flows to some particular organ, or its momentum, and thereby diminish the liability to congestion. No pathologist has disproved the fact that by bleeding the blood is impoverished, and the number of its globules diminished. No pathologist has shown that by thus giving a smaller quantity of impoverished blood to the nutritive processes everywhere progressing, there is not a corresponding diminution of caloric emitted, and of vital energy. Bleeding has gone out of fashion, because the profession, vividly impressed with the recollection of the excesses to which, at different times, it has been carried, has learned to substitute for it calomel and antimony ; but is it

not probable that by totally neglecting bleeding in inflammatory affections, calomel, antimony, and other remedies do not exert their influence so speedily as if their exhibition were prefaced by moderate bleeding? Without stopping to discuss the subject, venesection must, undoubtedly, be considered valuable in active hæmorrhage, exerting its influence by its mechanical or hydraulic, as well as by its dynamic effects; and if the redundancy of blood, of which nature has no means of disposing at the demise of the ovarian function, is an important element of disease at cessation, it follows that bleeding, so often effected by nature at this period of life, should not be neglected by those who pride themselves on understanding and on imitating her proceedings.

The reasons why plethora may be anticipated at the c. of life have been sufficiently explained. It sometimes exists with apparent weakness, which may be relieved by bleeding. In seeking to determine the utility of this measure, it is well to be guided by the state of pulse at the temples and at the heart, as well as at the radial artery, bearing in mind that, should there be much emaciation, the temporal and radial arteries would be brought nearer to the surface, and give a first impression of vigour when none exists. While the effects of bleeding are admirable in many patients presenting the plethoric type, they are sometimes detrimental to those who are chlorotic and nervous.

The most characteristic symptoms of the c. of life are, headaches, giddiness, heaviness, and drowsiness. I have drawn attention to these symptoms as of frequent occurrence at puberty, during pregnancy and lactation; and I find that whatever may be the period of their occurrence, they are often considered indicative of a determination of blood to the head, and bleeding has been resorted to. When I first began the study of medicine, I saw the ill effects of such a plan of treatment at puberty and during pregnancy; and Mauriceau gives an insight into the fearful abuse of bleeding in France about

1700, when he mentions, that two women were confined at the full time of well-developed children, although one had been bled 48, and the other 90 times, during the 9 months of pregnancy, for what he calls "oppression de poitrine," most likely nervous sensations of suffocation at the pit of the stomach, which can be removed by sedatives and antispasmodics. The same symptoms, with headache and giddiness, are, at the present day, considered as indications for bleeding by Columbat and Auber; and though in England similar mistakes are prevented because nobody bleeds, yet the fashion will change again ere long, and then will occur the danger of mistaking nervous disturbances for plethora. The following cases will, to a certain extent, exemplify the discrimination required to cure patients suffering under similar symptoms:—

CASE 10.—In 1844, the rage for bleeding again developed in France by the eloquence of Broussais, had subsided in Paris; but it was still often possible to test the ill effects of this pernicious system. About that time I was consulted by a lady, aged 51, tall, thin, with a pallid complexion, dark hair and eyes. She had first menstruated at 15, and the function had never been interrupted except by 3 pregnancies; the amount of secretion was moderate, and the function subsided gradually, being performed for the last time at the age of 48. For some months she felt no inconvenience, but afterwards she was much troubled by flushes and perspirations. She consulted an eminent French physician, who ordered her to be bled 10 oz. A slight improvement followed, but the same symptoms soon returned, which were again interpreted as signs of plethora, and other 10 oz. were withdrawn from the arm. This second bleeding made the patient worse; and when I saw her, the marked ill effects of the treatment made me think that it might have been injudicious, although I had not then paid particular attention to diseases of the c. of life. Not being able to explain the pains in the head, the flushes, and perspirations by plethora, I thought the nervous constitution

of the patient might in some measure account for them, and I gave anodynes and mild purgatives, advising a more strengthening diet. The patient rapidly improved, and in subsequent relapses derived benefit from the same kind of treatment.

CASE 11.—In 1850, I was consulted by a lady, aged 53, of middle stature, sanguine complexion, brown hair, and hazel eyes. She menstruated abundantly for the first time in her 13th year, and she has since been regular, the discharge being usually abundant. While the function was ceasing, she was twice seized with flooding, and felt better in health afterwards. Menstruation ceased at 51, and was soon followed by diarrhoea, which came on at irregular intervals, but did not interfere with the appetite and strength of the patient. When that supplementary discharge subsided, heaviness of the head, with giddiness, came on, together with flushes of heat and drenching perspirations. For these distressing symptoms she had consulted several medical men, and had taken large doses of quinine, acetate of lead, and gallic acid, but without benefit. I ordered her to be bled 12 oz., and the vertigo, flushes, and perspirations abated considerably. The bowels were to be kept open by Seidlitz powders; several glasses of effervescing lemonade to be taken in the course of the day, and a tepid bath for an hour every week. Meat once a day, no beer nor porter, one glass of sherry at dinner, and more exercise to be taken in the open air. In a month all the painful symptoms had disappeared, and the patient remained well for several subsequent months, when, without any apparent cause, the same symptoms broke out again. I ordered 8 oz. of blood to be withdrawn, and prescribed the former treatment, with similar good effect; and I should do so again—diminishing as much as possible the quantity of blood to be withdrawn—if a neglect of the prescribed diet, or some unforeseen nervous excitement, should bring on a relapse.

The symptoms experienced by both these patients were similar, but their constitutions were very different. The first

shows that, when nervous people are bled to excess, there arises a state which often closely resembles the threatenings of disease in the vital organs, relieved in other temperaments by bleeding. In the last case the patient was of a strong constitution, accustomed to lose considerable quantities of blood, and relieved by the occurrence. The vigour of the circulation was well proved, by the strong impulse of both heart and pulse, instead of the flaccid condition of both in the first patient. The one was relieved by sedatives and a strengthening diet, the other principally by bleeding; and I have seen bleeding remove these symptoms when it was not indicated by a strong constitution, but by the previously-contracted habit of losing a considerable quantity of blood; as in women of a slender make and slight delicate appearance, and in those whose nervous susceptibility is great, in whom, as I have previously shown, we must admit an hæmorrhagic diathesis.

If the utility of venesection is proved in cases similar to the one last related, in which, in these days, its employment would be scarcely thought of, it is reasonable to believe that the same means, combined with other remedial measures, should be resorted to, when the temporary plethora produced by the c. of life has given rise to inflammatory affections of the womb, or of the other organs.

Practitioners of olden time asserted that the effects of bleeding are very different if the blood be drawn from the arm or from the saphenous vein; such distinctions are now looked upon as hair-drawn; but, it must be remembered that, owing to the discontinuance of bleeding, the medical men of the present day cannot bring the question to the test of experience. It was formerly the custom to draw blood from the vena saphena, in cases of suppressed menstruation during the active periods of woman's life, and the precept may be still followed; but at the c. of life and after cessation, blood should be taken from the arm, for it is undesirable to encourage the tendency of blood to the pelvis; one should rather seek to diminish the

liability to congestion of the abdominal organs. At first, sufficient blood should be taken away to make a decided impression on the system. Nature frequently adopts this plan, for 138 women out of 500 were flooded at the c. of life. The effects of the bleeding should be aided by judicious regimen; for, doubtless, the necessity for bleeding, even plethoric women, would be considerably diminished, if it were not so difficult to persuade them to break through accustomed habits, and if they would consent, for a time, to diminish the quantity of their food, and refrain from what has been shown to be otherwise prejudicial to them. But the indication to bleed soon recurs in some women; it is then better to adopt a plan sanctioned by Tissot and Hufeland—to bleed in progressively smaller quantities, and at progressively longer intervals. Tissot mentions a case, in which it was necessary to bleed for 3 years, after which the patient recovered her health. Hufeland used to bleed three times in the first year after cessation, twice in the second year, and once in the third. I frequently follow the same plan, which is a daguerreotype of a natural process, for in 171 women out of 500, the m. flow ceased naturally, that is, by a gradual smaller amount of discharge, occurring irregularly every 2, 3, 4, 5, or 6 months. In one instance there was a slight show every 3 months for 2 years, and a similar case is recorded in the *Wurtemberg Correspondent*, of an unmarried woman in whom menstruation occurred regularly until her 50th year, from which, to her 74th, it occurred every 3 months in the quantity of 10 to 15 drops every time. In 53 cases out of my 500, there was a marked return of monthly phenomena after cessation. In such cases it might be judicious to bleed before the accustomed monthly occurrence.

LOCAL DEPLETION.—The effects of leeches are similar to those of general venesection; but while they subtract the best blood contained in the capillary system, they cannot give that shock to the system produced by the sudden withdrawal of

blood from its containing vessels. When prejudice interferes with bleeding, a few leeches behind each ear, or cupping at the nape of the neck or between the shoulders, should be resorted to. If piles have formerly had a tendency to bleed, leeches may be applied to the anus; they will also be sometimes useful if there be inflammation of the womb, though I was surprised to find that Dr. Ashwell advocates bleeding the womb by leeches as the best mode of depletion at the c. of life, for leeches are generally applied to the womb so as to determine blood to that organ; to apply them, therefore, at this period, except under peculiar circumstances, is to seek to prolong what nature wants to curtail. To check the determination of blood to the womb is a culminating indication of treatment at the c. of life; and even in cases of uterine inflammation I seldom apply leeches, for I find that repeated small general bleedings are more effectual in checking the monthly turgescence of the womb which may take place long after cessation.

PURGATIVES.—Diarrhœa relieved 52 out of 500 women at the c. of life. These bear witness to the utility of purgatives, as well as the 37 who were subject to dyspepsia, the 23 who were troubled with obstinate constipation, the 55 in whom biliousness was a prominent ailment, and the 6 who had jaundice once or more frequently. The utility of purgatives at cessation is further shown by the very intimate relation which I have proved* to exist between the generative and intestinal canals, and which is indicated by the relaxation of bowels which generally attends the m. flow. Purgatives constitute one of the most convenient local depletions by which the system can be habitually relieved; their employment, therefore, at this stage of the m. function, fully deserves the confidence which the profession has long accorded to the

* *Vide* "London Journal of Medicine," August, 1851:—Paper on Catamenial Diarrhœa, by the Author. Also, "Diseases of Women," Second Edition, p. 125.

practice, and the sanction which Fothergill has given to it; indeed the utility of purgatives has become so much a matter of popular, as well as of medical belief, that both patient and medical attendant too often confide in these alone, to the neglect of bleeding and of other important means.

I might give numerous cases in proof of the utility of diarrhœa, but I will merely state the following.

CASE 12.—Catherine M., aged 53, tall, thin, with dark hair, grey eyes, and pallid complexion, was born in Ireland, but for the last 35 years has resided in London. She menstruated very abundantly at between 15 and 16 years of age, was regular from the first, and continued so for 3 or 4 days every 3 or 4 weeks, with so little suffering that “she never felt them come nor go.” She married at 33, miscarried 3 times, and bore 5 children, the last at 47; and menstruation, which had been irregular a year previous to conception, never returned after that event. The patient was generally relaxed during the m. epochs. During her last pregnancy, and after her confinement, she frequently had 3 or 4 stools a-day, without pain or loss of appetite, and since then, diarrhœa has come on every 3 or 4 months, with intermittent flushes and drenching perspirations. For the last 12 months she has been relieved 6 or 7 times a day, until lately, when she has only been so once in 2 days, and has ever since suffered from heat, wind, nausea, oppression at the pit of the stomach, and want of appetite, though her tongue is perfectly clean and healthy. When the action of the bowels became freer, the patient got better.

When diarrhœa occurs at the c. of life, it generally appears at irregular intervals; it may, however, occur with the regularity of the m. function, as in the instance of a lady 45 years of age, in whom, at the accustomed time, diarrhœa came on, which the patient had usually found to be the forerunner of menstruation. The former lasted 3 days, and gave relief, although it was not followed by the sanguinoid flow then, nor ever afterwards:

thus every month for a whole year diarrhœa came to the patient's relief. I lately met with a case where there had never been any premonitory diarrhœa; nevertheless, the cessation of menstruation was for 5 years followed by an habitual looseness of bowels, occurring 2 or 3 times a day, generally without colics. The patient enjoyed good health during that time, and is now a stout and tolerably healthy woman. Dr. Day notices the salutary effects of diarrhœa, consisting of watery evacuations, taking place without apparent cause every 3 or 4 months after the cessation of menstruation; and he mentions the case of a lady 87 years of age, in whom for the last 30 years this had occurred with great advantage. Although nature occasionally brings on flooding, it would be wrong to risk the possible dangers of its induction by the exhibition of energetic purgatives just before the m. epoch, for they might increase the flow which nature seeks to diminish. It is more prudent to prescribe the frequent use of the milder opening medicines, which may diminish by degrees abdominal plethora, the more so as it may be many months before the constitution can settle down.

The cooling saline purgatives serve this purpose, such as the soluble cream of tartar, cream of tartar lemonade, Seidlitz powders, artificial Cheltenham salts, Epsom salts in small quantities, &c.

I frequently prescribe the soap and aloes pill of the E. Pharmacopœia, ordering 5 or 10 grains to be taken with the first mouthful of food at dinner. Kemp and Hufeland recommend the following powder to be given to those who are advanced in years, and who complain of a tendency to vertigo: Guaiacum resin, cream of tartar, of each half a drachm, to be taken at night. This, no doubt, will sometimes be found a useful laxative; so will the popular remedy called the Chelsea Pensioner, of which Dr. Paris has given the following formula in his excellent Pharmacologia: Of guaiacum resin, one drachm; of powdered rhubarb, two drachms; of cream of

tartar and of flower of sulphur, an ounce of each; one nutmeg finely powdered, and the whole made into an electuary with one pound of clarified honey: a large spoonful to be taken at night. Sometimes I administer the flower of sulphur alone, or else to each ounce of it I add 4 drachms of calcined magnesia; at others, I prescribe equal parts of borax and sulphur, 1 to 2 scruples of these powders to be taken at night in a little milk, which generally acts mildly: and such combinations are very valuable when a continued action is required. Thus taken in small quantities, and now and then left off, I have not heard sulphur objected to by patients on account of its determining any peculiar smell, neither when given alone have I found it cause fever, as stated by Dr. A. T. Thomson.

Sulphur is generally classed amongst purgative remedies, because such is its visible action; but it owes its chief value, in diseases of cessation, to another action, much more difficult to understand, and which has long rendered it so valuable both in hæmorrhoidal affections, where there is an undue activity of the intestinal capillaries, and in skin diseases marked by a morbid activity of the cutaneous capillaries. Whether sulphur cures by acting on the nerves or on the blood-vessels, or by modifying the composition of the blood itself, is difficult to tell, but it forms part of many popular remedies for the diseases of old age, and is lauded in works on those diseases; but its utility is not sufficiently known in all derangements of the m. function, at whatever period of life they may occur, and particularly at the c. of life, when, if required, its administration may be continued with impunity for months and years.

ALKALIES AND DIURETICS.—In healthy women, the monthly ovarian crisis generally produces *critical* deposits in the urine. Most women remark their water to be muddy a day or two before or during the m. flow. During the dodging time and after cessation, this turbid state was noticed in 49 out of my 500 cases to last for weeks, then disappear to

return. This is sufficient to indicate the utility of alkaline preparations. Their utility will be likewise apparent in the 37 cases of dyspepsia, the 31 of vomiting, the 5 of water-brash, the 55 of biliousness, and the 6 of jaundice. M. Mialhe has proved that alkalies possess, in a high degree, the property of liquifying the serum of the blood, and of thus diminishing its plasticity. Bicarbonate of soda has been given to diminish the tendency to plethora, and in this case practice is justified by theory. Dr. Parkes has shown by his patient investigation of the action of liquor potassæ on healthy subjects, that it varies, according to whether it be taken before or after meals. If taken after meals, the liquor potassæ acts as an antacid. It combines with the hydrochloric or lactic acid, and passes into the circulation without increasing the water, the solids, or the sulphuric acid of the urine. If liquor potassæ and other alkaline preparations, when given soon after meals, do not appear in the urine, we may conclude that they improve digestion and the crasis of the blood. Dr. Parkes and Dr. K. Chambers have shown that, when liquor potassæ is taken before meals, it has the power of reducing *embonpoint*. From 30 to 90 minutes after the liquor potassæ has entered the circulation, there is an increased flow of slightly acid urine, which contains the whole of the potash and organic matter differing from that of ordinary urine, and a relatively large proportion of sulphuric acid. In other words, an albuminous compound either in the blood itself or in the textures becomes oxidized; its sulphur, under the form of sulphuric acid, unites with the potash, and possibly with the changed protein compound, and is eliminated by the kidneys. The amount of albumen or fibrine thus destroyed by a few doses of liquor potassæ is doubtless small, but as the remedy can be taken for a considerable time, and its oxidizing effects can be assisted by exercise and by copious draughts of water, there is a possibility of removing superfluous matter from a patient without

risk. Dr. Shearman has lately drawn attention to some of the forms of ganglionic disease, to be carefully treated of hereafter, and which he considers dependent on neuralgia of the vagus nerve, connected with saccharine urine. Although our pathological views are somewhat different, our practice is similar, for Dr. Shearman places as much confidence as myself in alkalies, for the affections alluded to; he gives 3i doses of liquor potassæ to determine an alkaline condition of the blood, to reduce the sugar in the urine, and bring it back to its normal state of acidity. In all diseases of cessation, alkaline medicines are required as antacids and blood improvers; and with that view I generally order a tablespoonful of a 6 oz. mixture, containing, amongst other ingredients, 2 drachms of liquor potassæ, to be taken half an hour before meals; and immediately after meals, from 10 to 20 drops of liquor potassæ in a wine-glass of water, or a scruple of bicarbonate of soda in a mouthful of the same fluid. I have often continued this plan for weeks and months with occasional intermissions, the patients frequently returning to it of their own accord, because they find they cannot get on comfortably without it. As a blood improver, I frequently give the biborate of soda in small quantities, associating it with sulphur, when the patient has to take it at night, or with cherry laurel-water; 1 drachm of the salt to a 6 oz. mixture, when it is ordered 3 times a day. I think this salt has a calming action on the blood, like that which is attributed by many to nitrate of potash given in small quantities,—a plan also frequently useful. The saline diuretics are the nitrate of potash and the acetate of potash; these cannot, however, be left, like the antacids, to the patient's discretion, but must be watched by the medical adviser, and are very useful, not only when the urine continues to deposit, but when the patient suffers from flushes and perspirations, as they divert to the kidneys part of the saline particles which would otherwise be directed to the skin. Some women who became very stout after cessation, and who derived little

benefit from measures advised to relieve the sweats and nervous symptoms of this period, rapidly improved, when, by large doses of liquor potassæ, they had been disencumbered of a superabundant amount of fat.

SEDATIVES.—The 277 women out of 500 who suffered from pseudo-narcotism, the 226 who were troubled with dorsal pains, the 205 distressed by hypogastric pains, the 208 subject to headaches, the 146 presenting the minor forms of hysteria, the 49 distressed by epigastric pains, the 16 in whom insanity occurred, and many others who suffered from less frequent nervous affections, are all witnesses to the efficacy of sedative medicines, in relieving the many forms of nervousness to be anticipated at the c. of life. Sedatives are frequently given as *placebos*, to lull some nervous symptom ; and if they are not given more systematically, it is the fault of patients, who, when once the distressing symptom has been allayed, will not submit to systematic treatment, unless it be despotically imposed by some bold-faced charlatan. The utility to be derived from sedatives has been so admirably pointed out by one who has thrown considerable light on the difficult study of diseases of old age, that I avail myself of Sir H. Holland's remarks :—

“The manner of employing opium in modern practice might, until very lately, be cited among the many examples of perverse changes of fashion as to particular remedies and methods of treatment. The fear of confining the bowels and checking the secretions, constantly present to the mind of the practitioner, readily imbued the patient with the same alarm ; and thus far prevented the adequate use of a medicine having power of mitigating pain, of relieving spasm, of procuring sleep, of producing perspiration, and occasionally even of aiding the natural action of the bowels, by obviating the disordered actions which interfere with it. I speak of this as having been, because it is certain that opiates are again more largely employed, since the introduction of morphia as a

common preparation has furnished new methods of administering the remedy, and revived attention to the principles of its action. Yet even now it may be affirmed that there exists a distrust, both as to the frequency and extent of its use, not warranted by facts, and injurious in various ways to our success in the treatment of disease. This is the more singular, seeing the boldness of our practice in other points, that we have in the sleep produced a sort of limit and safeguard to its effects, and that we possess remedies of easy application for all injurious symptoms that can arise. To the insufficiency, indeed, of the quantities given, may be attributed, in some part, the comparative disregard into which the remedy fell during a certain period. Half a dose might disturb and distress the night which a full dose would have made one of perfect rest, or perplex the aspect of symptoms which a larger quantity would have alleviated or removed.

“Yet medical experience does but follow common observation in recognising the inestimable value of sleep in sickness, of the suspension of pain, and the check to all disordered actions thereby obtained. For pain and sleeplessness, though strictly but symptoms of other ailment, may often, in practice, be viewed as disorders in themselves, the removal of which is essential to the success of our general treatment. How frequently do we see a nervous restlessness come over the patient, the consequence of protracted sickness or other causes, retarding cure by preventing the due effect of remedies, and receiving no relief itself from the means employed for the disease? In such cases, the physician is not to submit himself to names or technicalities. The regular course of treatment must be suspended until the hindrance is removed; and even seeming contradictions to this course may safely be admitted for the attainment of the object. Here opium is the most certain and powerful of the aids we possess; and its use is not to be measured timidly by tables of doses, but by fulfilment of the purpose for which it is given. A repetition

of small quantities will often fail, which, concentrated into a single dose, would safely effect all we require."

These remarks are in every way applicable to diseases of the c. of life; for at that time, more than at any other, the system frequently requires only to be freed from present pain, to enable it to return at once to the regular performance of its various functions. Sedatives, by assuaging the acuteness of pain, lull excited action to a slower rate of progress, and to a more subdued tone, for the blood-vessels serve under the immediate rule of the accompanying nerves; and sedatives, by restraining the heart's action, diminish the momentum of the blood.

I have another motive for giving sedatives at the c. of life which I submit, with diffidence, to the profession. During a prolonged tour in Egypt, Syria, and Turkey, the greater frequency of impotence amongst men in the East than in Europe, was often a matter of conversation with many intelligent medical men practising there. This impotence, in comparatively young men, is always attributed to great abuse of the sexual gratifications; but if it be more observable in Constantinople and Cairo than in Paris and Vienna, I attribute the fact, not so much to immoral practices, equally frequent in all large towns, but to the constant use of opium and haschisch, which have a decided anaphrodisiac action. The principal source of cerebral disturbance at the c. of life is, the irregular stimulus of the reproductive organs, which are no longer relieved by a regular critical discharge; I therefore deem that, in many cases, the systematic use of camphor, lupulin, hyoscyamus, and opium are required. Many of my patients were driven to the verge of insanity by ovario-uterine excitement; and in proportion as it was assuaged by the systematic exhibition of sedatives, cerebral disturbance abated. Those who would be most benefited by sedatives are the nervous and chlorotic, in whom there is often action without power—action requiring to be restrained until the

system has gathered strength; and as the tolerance for a remedy is generally in direct proportion to the possibility of its being required, it will be found that the thin, weak, and nervous are most sensitive to the action of sedatives, and can be brought to tolerate the largest doses. Those of the plethoric type bear the solanaceous sedatives better than opium, unless this be given with ipecacuanha and purgatives; and calomel or blue pill should be combined with the sedatives given to women of a bilious nature. These observations apply to sedatives *internally* exhibited; but, as sometimes their poisonous effects are felt before the local sufferings are appeased, their *external* application may also be required for complete relief. As the sedulous and intelligent application of external remedies is not sufficiently resorted to, I shall support my estimation of their utility by quoting again from Sir H. Holland, who observes that, "where true inflammation has not existed or has been removed, and where irritation or nervous sympathies are the sources of the distress that is attached to the spine and limbs, it is singular what good may be effected by opium, externally applied—not, however, in the careless and inefficient way which is common with external remedies, but sedulously, and with a sufficient proportion of opium in the forms employed."

Sedatives may be frequently used in lotions or ointments, carefully rubbed in, or in poultices; the active substance being sprinkled over or incorporated with an ordinary linseed-meal poultice; but as the natural idleness of patients prevents their working heartily at the recovery of health, and their giving due attention and time to rubbing in medicines, I frequently order large, soft, and well-made belladonna and opium plasters, to be used in rotation, a fresh one to be substituted every week. In the action of plasters, besides the substance absorbed, the local heat engendered is to be taken into consideration, as well as the increase of perspiration; and perhaps, also, some alteration in the electrical status of the skin. The pains or

anomalous sensations of the pit of the stomach, which play so important a part in the nervous affections of women, are susceptible of being abated and removed by the application of sedative plasters to the epigastric region ; and, in some cases, relief can be obtained by no other means. The exhibition of sedatives by the rectum is another invaluable mode of giving them at the c. of life. It is doubtless right to avoid as much as possible any measures repugnant to female delicacy, but this must not be allowed to interfere with the patient's cure, and the reproductive system is so intimately connected with the lower part of the bowel by nerves, blood-vessels, and cellular tissue, that the easiest way of acting on it is by the rectum, the more so as its mucous membrane is capable of so much greater power of absorption than the skin. Suppose a patient suffering habitually from nervous uterine irritability, from bearing-down pains, vesical tenesmus, and severe pains in the sacrum and thighs—putting inflammation out of the question, the necessity for sedatives will strike every one. Most medical men will give them by the mouth, either in such moderate doses that the patient's sufferings will be long in abating, or should the quantity have been sufficient to assuage the pain, the drugs may have acted so strongly on the system that it would take some days to recover from their poisonous effects. Afraid of this, others would apply sedatives to the pelvic regions or the loins, but before relief could be given much time must elapse ; though, if the fomentations had been associated with sedative injections into the rectum, relief would soon be afforded without any subsequent ill effects, because the remedy being applied directly to the diseased nerve, the dose could be proportioned to the intensity of the pain. Is it not then better to give sedatives by the rectum than to leave a patient in an habitual state of suffering, or with the occasional variation of an overdose of opium ? This is applying the right remedy to the right place, or *applying the sedative as near as possible to the suffering nerves*. If

this applied only to cases of lumbo-abdominal neuralgia connected with uterine irritation, their frequency at the c. of life would justify my dwelling on the subject ; but in other cases, where there are no abdominal or lumbar pains, I frequently order sedatives by the rectum, with the greatest benefit. In nervous irritability, where there is a great tendency to headache, delirium, pseudo-narcotism, or any state approximating to insanity, they are most useful ; and for this reason, that all those distressing conditions of the mind at the c. of life do not depend upon idiopathic cerebral disease, but on the perverse reaction, on the brain, of some anomalous ovarian influence transmitted through the ganglionic nerves. Believing in the anaphrodisiac effects of sedatives when given internally, I consider that they act in the same way, but with greater intensity, when given by the rectum ; and that, by assuaging the pain and irritation of the reproductive system, sedatives, thus given, allay the disturbed action of the ganglionic nerves, and thereby cure cerebral affections. This mode of administering medicines was known to the ancients, for, in cataphora, Aretæus gave castor by the rectum. For internal exhibition, I sometimes give minute or large doses of the morphia salts, though I generally prefer the comp. ipecac. powder, or 20 minims of the L. Pharmacopœia solution of acet. of morphia, with 20 minims of ipecac. wine, which is equivalent to 10 grains of Dover's powder. Laudanum or vini opii are good for fomentations, and 30 or 40 drops of either may be sprinkled on a poultice or on flannel wrung out of hot water. By the rectum I generally give Battley's solution, as in the following prescription :—

Battley's solution	ʒi.
Tincture of hyoscyamus	ʒi.
Spring water	ʒiii.

Half an ounce of this lotion contains ʒi of Battley's solu-

tion, and $\mathfrak{z}\text{i}$. of tinc. hyoscyamus ; and I order this, or double the quantity, to be put into a 2-ounce India-rubber bottle. This the patient fills up with warm milk, and after screwing on the canula, and anointing it with a little cold cream, it should be gently pushed up the bowel. When this is done, the firm pressure of the bottle by the hand will empty its contents into the bowel ; the bottle should then be withdrawn ; the mild nature of the fluid, and its small bulk, almost always allow of its being retained. The salts of morphia may be advantageously applied on some portion of the skin from which the epidermis has been removed. I have often done this, with advantage, to the pit of the stomach, when it was the seat of pain, or of peculiarly annoying sensations. Those who affirm that opium alone will not allay the nervous affections of the c. of life, admit its utility when combined with assafoetida, castor, and other remedies.

To relieve the slight cerebral symptoms, which, though removed, so frequently return, I give hyoscyamus, the mild action of which permits its being long taken without producing cerebral disturbance or constipation ; it is, moreover, an admirable remedy to soothe nervous irritability ; and I often give 2 gr. doses of the ext. with 3 grs. of blue pill every other night, or the tincture in the form of a mixture composed of a solution of potash and tincture of cardamoms, of each 4 drachms, with 6 drachms of the tincture of hyoscyamus in 6 oz. of camphor mixture ; a table-spoonful to be taken alone, or with a little water, 10 minutes before every meal, and on going to bed. The proportions of the ingredients may be varied according to circumstances, but many practitioners have expressed their approbation of this prescription. At the public institutions to which I am attached, I am very frequently asked for "some more of the same stuff which did them so much good before." Hyoscyamus is an invaluable remedy in the treatment of diseases of women, whether given

according to the preceding formula, as an extract in pills, or as a topic in plaster. No sedative has so soothing, so harmless an action on the nervous system of women.

The extract of conium has been likewise much resorted to at various epochs ; and, when properly prepared, it is very useful given in pills alone, or combined with the blue pill.

BELLADONNA is seldom used except externally ; the dread of the singular hallucinations which it produces, when taken in poisonous doses, has prevented the internal use of a valuable drug. A knowledge of the beneficial results obtained in many nervous affections from its use by Dr. Debreyne, ever since 1815, led me to employ it for similar complaints at the c. of life. I give pills made with one grain of the pure ext. alone, or associated with whatever remedy may be indicated ; increasing the number of pills from 1 to 3, and continuing at that number for a few days, unless the eyesight becomes disagreeably affected, or other symptoms of intoxication should indicate the urgency of leaving off the pills, which may be resumed again after a few days' interval. Sometimes I add the tincture of belladonna to cherry-laurel water, so that 5 to 10 drops of the tincture may be taken twice a day. From 15 to 25 drops of the tincture, with a similar quantity of Battley's solution, will also be useful as a rectal injection. For external use I give the following ointment :—

Fresh ext. of belladonna	15 drachms.
Ext. opium	2
Prepared lard	15
Essential oil of lavender	6 drops.

I also frequently use the belladonna plasters. It is indispensable, for the action of the ext. of belladonna, that it should be fresh and carefully prepared. Mr. Taylor, of 13, Baker-street, Portman-square, prepares it for me ; but any druggist can do so, if he will take the trouble.

CAMPHOR is a remedy which defies the influence of fashion.

It is related in an article on the burning of widows—*Quarterly Review*, Sept. 1851—that “the messenger found the Brahmin plying her with camphor, so that he was wholly unable to overcome the exultation which she exhibited.” The fact proves the knowledge of some of the properties of this drug by a people now, in many points, as they were found by Alexander the Great. Dr. Physick says, that “camphor was made for women, with whom it always agrees, while it always disagrees with men.” This is an exaggeration, for I have met with women with whom it has disagreed, and it often agrees with men. The subtle fumes of camphor seem to spread like an aura over the nervous system, stimulating it to increased action, causing the capillaries to eliminate with the perspiration, whatever oppressed the nerves, whether it be a liquid, gaseous, or an electroid fluid with which they are overcharged. The effect of this is a subsidence of pain, an increase of strength, and sometimes a sensation of lightness, the patient feeling as if she could fly. Camphor seems to correct the toxic influence which the reproductive system has on the brain of some women; its anaphrodisiac properties have been often shown in priapism and nymphomania. It abates the sexual sting by acting on the cerebro-spinal nerves of the external organs of generation, not on the testicle or ovary. The testimony of Raspail on this point is of great value, and he says, that habitual large doses did not prevent conception nor induce impotence. Camphor may therefore be useful in appeasing the excitement of the external organs of generation at the c. of life. It is, however, usually given in ineffectual doses. Dumas, who practised at Montpellier in the beginning of this century, and who has written a good book on *Chronic Nervous Affections*, gave—he does not mention how—100 grs. in the course of a day. Raspail gave from 5 to 10 grs. in a wine-glass of water, with or without a few drops of ether; I give it in this way, or prescribe Sir J. Murray’s fluid camphor. For external application, there is the cam-

phorated oil, made with 1 drachm of camphor to 1 oz. of oil; the camphorated ointment, made with 2 drachms of camphor to 1 oz. of lard; and the camphorated vinegar, made by dissolving 1 oz. of camphor in a pint of vinegar, which is useful, when diluted with water, to apply to the head in headaches, or to the skin in its various affections.

Raspail's sedative lotion is an excellent formula :—

Aromatic spirits of ammonia	2 oz.
Camphorated spirits of wine	3 drms.
Common salt	2 oz.
Water	2 lb.

The salt is to be dissolved in the water, filtered, and the solution mixed with the other ingredients, which should be previously combined, and the lotion should be kept in an air-tight bottle.

This lotion may be applied with a small sponge, or a pad of soft linen may be soaked in it, and applied to the painful part, renewing it as often as may be required. If the lotion irritates the skin too much, water may be added. This is an invaluable application in all the cerebral affections of the c. of life.

What is now known as soluble camphor, or 3 parts of camphor dissolved in 1 of chloroform, is a good external remedy for pain circumscribed in a small spot. A drachm or two of powdered camphor may be sprinkled on a linseed-meal poultice before its application; if coarsely powdered and folded in cotton wool, it may be worn as a sacket at the pit of the stomach. It may be sprinkled on a belladonna or other plaster, and then applied where judged necessary. After a full injection of tepid water has been retained from the rectum, 3 or 4 ounces of camphor water may be injected twice a day, and camphor, incorporated with violet powder, may be freely used to relieve pudendal irritation and flushes, when dry and annoying. The forms are given in the chapter on cutaneous affections.

CHERRY-LAUREL WATER, as sold in Italy, is so strong that a moderate dose has sometimes caused fatal accidents. As it is usually sold in England it deserves little confidence, being seldom genuine. Of what is sold in Paris, an ounce might be given to an adult twice a day. It is a useful and agreeable medicine, but I seldom order it, for fear some preparation of bitter almonds should be substituted.

LUPULIN.—I have long been in the habit of adding 6 drachms of the tincture of lupulin to a 6 oz. mixture; and I am confirmed in my opinion of this drug by what has been lately stated by German and French practitioners, who have found that when from 2 to 16 scruple doses of the yellow lupulin were given, they effectually quelled the erection of chordee. If these results are confirmed, it would certainly show a strong anaphrodisiac action, and justify its use in diseases of the c. of life.

CASTOR.—This is an old remedy, which I have often found useful; I add the tincture to my ordinary mixture. The compound tincture of the Edinburgh Pharmacopœia is a very good formula.

AMBERGRIS.—This drug is extensively used by perfumers, and it is mixed with the haschish by rich Turks. Brillat de Savarin's eulogium of its effects made me try it. I give ten to twenty drops in a 6 ounce mixture, and it is certainly a reviver of nervous force; I now habitually give it at the Farringdon Dispensary in the following form, of which one or two table-spoonfuls are taken three times a day:—

Tincture of hyoscyamus	ʒiv
Tincture of catechu	ʒiii
Potash water	ʒii
Essence of ambergris	ʒxv
Camphor mixture, ad	ʒx

All that I have said in praise of sedatives will be fully confirmed when nervous affections come under consideration; at

present I can only repeat a hope expressed in a first edition, that sedatives may be more systematically used at the c. of life than is now the case, so as to withstand the over-exciting effects of the present civilization on the nervous system by deadening the reproductive stimulus, which only lingers on to disturb health, in order to arrest in its bud the tendency to mental derangement.

SUDORIFICS.—In some countries the polite question on meeting a friend is not, "How do you do?" but "How do you perspire?" This might apply to women at the c. of life, for the 201 out of 500 who had continual perspirations, and the 84 who were for a long time repeatedly sweated, show the utility of sudorifics. Indeed, for one woman who is for a time relieved by a critical exhalation of blood from the womb, 20 or more derive permanent benefit from long-continued critical cutaneous exhalations, so I wonder that the utility of perspirations, and the advantages to be derived from sudorifics, have not been more insisted on, especially as their action is exerted on an immense surface, and followed by the exhalation of a large quantity of water, salts, and animal matter. That the perspirations of this period have not passed quite unnoticed is evident from Siebold mentioning a case of sudden cessation, followed by abundant perspiration. Tissot also alludes to the fact, that when intermittents were frequent, he sometimes saw menstruation finish by an intermittent fever, which, by greatly augmenting the perspirations, relieved the patient of the other infirmities which so often attend this critical change. For proof of the utility of perspirations in many affections at the c. of life, I refer to many cases in this work. Siebold's case, however, reminds me of Emma S., aged 55. The m. flow left suddenly at 40; since then she has never suffered, but had constant, gentle perspirations. Eliza S., aged 52, lost the m. flow suddenly at 42, in consequence of bleeding being performed during a m. period; since then, she has had constant, gentle perspirations, but no suffering.

Whenever women suffer more than usual from distressing sensations, referred to the pit of the stomach, and from a considerable amount of cerebral disturbance, it will frequently be ascertained that the skin has a tendency to be dry. There may be "dry flushes," but the skin is not relieved by free perspiration. In such cases, profuse perspiration, whether an effort of nature, or the effect of medicine, brings speedy relief. To induce perspiration, I sometimes begin with an emetic; a large table-spoonful of acetate of ammonia given repeatedly, the patient being in bed, is often useful: when there is no tendency to cerebral congestion, I have, in some cases, given vapour baths, though I generally prefer the more permanent, gentle perspirations, brought on by a cooling regimen, by warm baths and sulphur, of which I give 1 or 2 scruples once or twice a day.

BATHS.—The 287 women who suffered much from repeated flushes, the 84 who were habitually sweated, and the 42 who presented various cutaneous affections, bear witness to the utility of baths. A warm bath is a very simple thing, but it acts in many ways. 1. It removes from the skin the saline deposits and other secretions left there by continued perspiration. 2. The veins can thereby, through the skin, absorb a certain amount of water to cool cutaneous irritation and dilute the blood. 3. The warm bath is a gigantic poultice, applying its warmth to all the peripheric expansions of the nervous systems. In some hidden way the warm bath is a positive absorbent of the nervous irritability and a sedative to the nervous system; and when it is considered that it is not only a gigantic poultice, but one which is perfectly manageable—that the temperature may be increased or lowered according to the patient's feelings and the practitioner's discrimination; that while the patient is in tepid water, cold applications may be made to the head, and a stream of cold water directed to the abdomen through a vulcanized India-rubber tube, so as to quell local congestion, it is not surprising that the greatest men have, at various times, vaunted the utility to be derived

from baths in nervous affections. Notwithstanding the late sanitary movement, and the establishment of public baths, the popular mind in England is averse to bathing. There are thousands who never take a bath, and for those who do bathe it is often only a hop, skip, and a jump. Alluding to an hysterical patient, Pommé says, "It is so difficult to conquer prejudice, that I could scarcely persuade her to remain 10 hours in the bath every day." What would he have thought of patients who stare when they are told to stop one hour in it, and who ask "if baths are not very weakening?" The strength of popular prejudice reacts on medical practice, and makes the profession forget the advantages of prolonged bathing for nervous affections. Hippocrates says, "*Melancolici in tantum curantur, in quantum balneantur.*" Galen, Aretæus, Coelius Aurelianus, and Celsus order hypochondriacs to drink cold water, and use fomentations and tepid baths. Hoffman and Baglivi admit that hypochondriacal affections are best cured by the continued use of tepid baths. Sanctorius has the following axiom:—"Hypochondriaci, si frequentibus balneis eorum corpora reddantur perspirabilia, et victu humido utantur, sani fiant." Pommé owed his reputation to the sagacious manner in which he used water as a medicinal agent, both internally and externally. He generally made his patients stop in the water 3 or 4 hours a day; and 10, or even 16, in very severe nervous affections. If the plan were not really beneficial, it would not have been recently revived and adopted under a modified form in the lunatic asylums of France.

When I wish to obtain the sedative effects of baths, I direct the patient to take them heated to about 93°, and to remain in 2, 3, or 4 hours, having warm water added at times so as to maintain a grateful temperature. A greater sedative effect will be obtained by letting the water gradually cool down to 90°, or even lower, and the amount of water absorbed will be proportionate to the low temperature of the bath. It

stands to reason that, when cold-water irrigations are applied to the womb, or to the hypogastric region while the patient is in the bath, there should be convenient means of emptying as well as of replenishing it. Thus given, the bath is a powerful agent, and its exhibition should not be left to the patient alone, or to a nurse, but the practitioner should see her just before she enters, and a few minutes after she leaves it, so as to judge of its effects. There are few patients in whom baths are not serviceable, but their action is most decided in the thin. Hydropathy I do not think calculated to do good at the c. of life. Bathing in some mineral water is, however, often serviceable, as will be mentioned hereafter. On referring to the *Times* of June 30th, 1854, there will be found an account of an inquest held on the body of a man who took a bath at about 100, and died while in it of serous apoplexy. It was stated that there was no thermometer kept at the institution where this occurred, and that there had been 16 similar accidents in the previous year. This shows that no bath should be entered without its temperature having been ascertained by the thermometer, though even this is not always sufficient, for one of my patients, for whom I had ordered a bath at 92°, took it at one of the best conducted of the public baths, but after remaining in the water about three-quarters of an hour, he was surprised at finding it become hotter and hotter, and as soon as he was dressed he made the attendant test the heat, which was found to be above 100°. This occurred a second time in the same institution a few days after from some leak in a hot-water pipe. My patient, being in the prime of life, only suffered from headache for the rest of the day; but an apoplectic fit would have been of likely occurrence in an elderly person, as in many cases with which I am acquainted, and were caused by the patient's own imprudence. Public baths are admirable institutions, but their managers must be made aware of the accidents likely to occur from faulty or deficient machinery.

COUNTER-STIMULANTS.—Many neuralgic affections require counter-stimulants. A fixed pain is often relieved by dry cupping, by mustard poultices on alternate nights, and by friction with the well-known stimulating liniments. To the pit of the stomach I often apply pitch plasters and sometimes blisters; but I do not think the advantage derived from rubbing in tartar emetic ointment is equal to the annoyance it causes. Sir A. Carlisle, Drs. Corrigan and Day, Jobert de Lamballe, Mayor de Lausanne, Sedillot and Bouvier, have warmly praised the application of heat in the treatment of neuralgic affections, which are, for the most part, superficial. Valleix made heat the basis of his treatment of such complaints, and Dr. Day praises its use in neuralgic affections of the aged, while Dr. Mitchell, of Dublin, thus relieves the lumbo-dorsal and other fixed pains to which women are peculiarly liable. The manner of application is, by a piece of steel previously plunged in hot water or heated by a spirit lamp, being placed for a few seconds on the painful spot; the prolongation of its application and the number of points thus touched, will vary with the severity of the case. The pain it gives is slight, but the relief is often considerable.

ISSUES.—Those who practised in England long before the birth of the present generation, frequently applied issues and perpetual blisters to those suffering from chronic complaints. They thought that, by these means, they could eliminate from the blood certain constitutional impurities; considering that in such patients the system had acquired the habit, and therefore the want, of some permanent irritation, and that by establishing a sufficiently active superficial focus of irritation, it might cause blood currents to set in habitually towards the periphery, and thereby relieve the deep-seated centres of pathological irritation. This doctrine has been credited from the oldest times; it may be true, but issues have gone so much out of fashion, that, like myself, few medical men are able to speak from experience upon a medication of doubtful

benefit, and which is much opposed to popular prejudice. An esteemed authority, however, Dr. F. Churchill, agrees with Fothergill in the utility of applying issues and blisters to those who, in early life, have been relieved from cutaneous or other disorders by the establishment of the m. flow. He says, "I have repeatedly tried caustic issues, or perpetual blisters, and with the greatest advantage. They certainly aid the action of the remedies already mentioned, and, I think, prevent the recurrence of those irregular congestions which Dr. Fothergill has described." Gardanne and B. de Boismont likewise speak confidently on the utility of issues in preventing disease at the c. of life, but I agree with Dr. Ashwell that they are not often necessary, except when cutaneous eruptions are troublesome, and have been so in youth.

MINERAL WATERS.—Cold sea-bathing is out of the question at the c. of life. I have not advised warm sea-baths, but several patients have tried them without deriving benefit, while others have thought themselves worse for their use. Gardanne states, that the effects of mineral waters are rather disadvantageous than otherwise; but he does not say how or where they are taken, or under what condition of regimen. In other words, no attempt has been made to find what particular waters may be best suited to the varied types of women undergoing this change.

The baths of Aix en Savoie, combining varied medicated waters with good society and a country abounding in beautiful scenery, seem to me well adapted for the purpose. They are situated within a few hours' drive from Lyons, la Grande Chartreuse, Geneva, and the splendid scenery circling Mont Blanc; and as to the waters, the advantage I have attributed to the use of sulphur, alkalies, purgatives, and steel, shows that their chemical nature is such as to render them very useful at the c. of life. Sulphurous waters may be good, not only in cutaneous affections, but in many cases of congestion of the internal organs, and in anomalous epigastric neuralgia

Alkaline waters, like Vichy, are not overrated in cases of obstinate biliousness, dyspepsia, vomiting, and gout. Chalybeate waters are useful in chronic debility, chlorosis, and in the after part of the treatment of many of the gastro-intestinal affections. Hot springs may be made serviceable in the cure of rheumatic affections, lumbo-abdominal neuralgia, local paralysis, paraplegia, and, in general, all neuralgic affections. In giving mineral waters, it is better to be governed by what is known of the state of the system at the c. of life, than by the practice of the various watering-places, and to remember that patients will derive most benefit from mitigated doses, and from less energetic treatment than usually prevails at foreign establishments. It must always be borne in mind, that those of the plethoric type will be much worse for large quantities of sulphurous water, which may bring on flooding, if not cerebral congestion. It would be also imprudent to give them hot or vapour baths. At Aix en Savoie will be found very active mineral waters, which are called sulphureous; but they differ from others of the same name by the sulphydric acid being *free*, instead of combined with soda or any other base, so that if exposed to the air for a time there would remain a saline mineral water, which may be given in large quantities as a purgative; and until this effect is produced, the bilious are liable to be made more so by their use. The water of the spring called "*Soufre*," is very similar to that called "*Alun*," but the latter contains less sulphydric gas, and more carbonic acid. The temperature of both springs is very high, whereas the water of the ferruginous spring, called S. Simon, is cold. The following is an analysis of the waters of Aix les Bains:—

Analysis of the Mineral Waters of Aix en Savoie.

M. J. BONJEAN, 1838.

Substances contained in the pound or 1000 grammes of water.	Soufre.	Alun.	S. Simon.
Azote	0,03204	0,08010	traces.
Carbonic acid, free . . .	0,02578	0,01334	0,00338
Sulphydic acid, free . . .	0,04140	"	"
Oxygen	"	0,01840	"
Carbonate of lime	0,14850	0,18100	0,00592
" of magnesia	0,02587	0,01980	"
" of iron	0,00886	0,00936	0,00169
Sulphate of soda	0,09602	0,04240	"
" of alumina	0,05480	0,06200	"
" of magnesia	0,03527	0,03100	"
" of lime	0,01600	0,01500	0,00127
Hydrochlorate of soda . . .	0,00798	0,01400	"
" of magnesia	0,01721	0,02200	"
" of lime	"	"	0,00127
Silica	0,00500	0,00430	"
Phosphate of alumina . . .	0,00249	0,00260	"
" of lime			
Fluoride of calcium	a trace.	a trace.	"
Glairine			
Apocrénic acid	0,01200	0,00724	a trace.
Loss			"
Total	0,43000	0,41070	0,01353
Specific weight	100,010	100,025	100,027
Temperature	125° F.	135° F.	"

The "Soufre," or "Alun" water, in small doses, acts as a sudorific; in large or long-continued doses they cause slight fever, and a cutaneous eruption, called "poussée." This critical phenomenon, so useful to obtain in many chronic disorders, would be objectionable in most affections at the c. of life, with the exception of cutaneous diseases, and some very exceptional cases.

MODES OF EXHIBITION.—I do not recommend more than 2 or 3 half tumblers to be taken before breakfast at intervals of a quarter of an hour, which should be employed in walking about. The bath should be taken before lunch, the mineral

water being at first diluted with two-thirds, and then with an equal quantity, of plain water. There are baths so contrived, that continued irrigation of the hot mineral water may be directed to rheumatic and paralytic limbs and to the foci of neuralgia. Hot and cold douches of varied pressure can be employed in similar cases. Hot and cold shower baths are better avoided, except in cases of nervous debility, in thin semi-chlorotic patients. In such cases it is well to give from 3 to 6 gentle alternate hot and cold sprinklings by the shower bath, and then a bath at 95°, allowing it to be left so soon as the water has cooled down to 90°. By a more liberal exhibition of the mineral waters internally, as well as of the shower baths, the system will often be relieved of any troublesome amount of fat with which it may be encumbered.

The St. Simon water is only to be drank; the spring is situated about 20 minutes' walk from the town, and 2 or 3 tumblers may be taken in the course of the day. I shall refer again more than once to these celebrated waters, much resorted to on the Continent, and fashionable even in the time of the Cæsars.

One observation applies to the treatment of all the diseases of this epoch—the necessity for time. Nature cannot work at a railway pace. A habit of 32 years cannot be interrupted without periods of hesitation, trial, and infirmity, previous to health being regained.

CHAPTER V.

GENERAL PRINCIPLES OF HYGIENE OF THE C. OF LIFE.

THE diseases of the c. of life are, in general, more tedious than dangerous, liable to relapses, and so much under the influence of hygiene that this deserves special notice. As at puberty, from the total ignorance in which it is thought right to leave young women, so at the c. of life, women often suffer, from ignorance of what is to occur, or from exaggerated notions of the perils that await them. It would be well if they were made to believe that, if in tolerable health, provided they will conform to judicious rules of hygiene, they have only blessings to expect from this critical period. The c. of life may be dangerous for those who are always ailing, for habitual sufferers at the m. periods, and for those affected with uterine diseases; indeed, according as the sufferings of women were protracted, previous to the healthy establishment of the periodical flow, so may they expect its cessation to be attended by a corresponding period and intensity of suffering. Women should know, that unless they be pregnant or nursing, great irregularities in the monthly appearance coinciding with sensations of sinking at the pit of the stomach, with flushes and perspirations—even though their age may only be between 30 and 40—may, in general, be considered as warnings of cessation, particularly if they are accompanied by a corresponding amount of pseudo-narcotism. This knowledge would prevent cessation being considered in the light of temporary suppression, and forcing medicines and purgatives being taken without the sanction of medical advice. If, on the first indication of the c. of life, women sought advice, carefully followed a

regimen, and pursued a line of life in harmony with the physiological processes on which this change depends, I believe that almost all disease would be prevented; but as it is the end of a natural function, it is thought right to leave it to Nature; no additional precautions are taken, and no advice is sought for, until the mischief is done. It will sometimes devolve on the medical man to explain to the patient's relatives, that the system may be, for a time, unhinged; that harsh treatment may aggravate the already too distressing symptoms; and that it would be cruel to consider as positive insanity, the strangeness of temper, the fitfulness of spirits, the perversion of character, which, after a few weeks or months of treatment, may considerably abate or entirely disappear. The temporary avoidance of those to whom an aversion may be held, following the instinct of the patient so far as frequenting society is concerned, encouraging any inclination for particular occupations, are all points of great importance. Manual labour cuts off the heart from its too engrossing objects of delight, even in cases of confirmed insanity; how useful, then, it must be in diminishing nervousness! I shall briefly give the principal rules of hygiene for the prevention of disease at the c. of life, referring them to the great functions of the human economy.

HYGIENE OF THE REPRODUCTIVE ORGANS.—I have shown that there is something more or less anomalous and morbid in the reproductive organs and their action on the system during the first half of the c. of life, and that in the latter part of this period these organs have a tendency to become atrophied. Can there be a clearer indication that they no longer require their hitherto appropriate stimulus? Hence it is unreasonable to marry during this period. Experience, moreover, teaches me, that even in those who have been long married, connexion at the c. of life has sometimes been a cause of uterine disorders, and that these have frequently occurred in women marrying during this epoch. Whether parturition is

then more dangerous, the Registrar-General's office does not afford the possibility of ascertaining; nor whether those who died of metria or in childbirth, from 40 to 50, had been recently married or not; but I believe marriage then increases the liability to flooding and to nervous disorders. Although marriage at this period is contrary to physiology, it appears from a table, p. 20, that in 1851, 982 spinsters and 2375 widows married from the 45th to the 55th year. Taking this as an average, it is worth while inquiring why 3357 English women every year do what seems injudicious. The plain, straightforward motive is often the worst way of interpreting the actions of civilized beings; I therefore believe that most of these women were led to the altar by other than sexual motives. The desire of bettering themselves, or that of showing others that they could have married before if they liked, influences some; others, like besieged fortresses, surrender at last for the sake of quiet and peace. I admit with some novelists and most physiologists, that, as a flickering flame gives a final blaze, so in some women, sexual desire is strongest when the reproductive power is about to be extinguished; this, however, is not the rule, for I have been repeatedly told, that a distaste for connexion was the first sign of an approaching change. Those who have perused the preceding chapters will understand why I believe sexual impulse at the c. of life to be generally an anomalous if not a morbid impulse, depending upon either neuralgic or inflammatory affections of the genital organs. I can, therefore, corroborate B. de Boismont's assertion, "that whenever sexual impulse is first felt at the c. of life, some morbid ovario-uterine condition will be found to explain it in 19 out of 20 cases." Thus, I deem it imprudent to marry at this epoch without having obtained the sanction of a medical adviser. The danger of doing so is well portrayed in the following case, which also shows how women sometimes seek to stay the inexorable hand of time by protracting the regular appearance of the sign of womanhood;

but should they succeed in bringing on an appearance, the flow, if not natural, as heretofore, must arise from a diseased state of the womb, and cannot, therefore, give the hope of progeny.

Some years ago I was consulted by Mrs. * * *, aged 48, who, when about 25, formed a strong attachment, but family circumstances prevented a union taking place. This attachment was kept up with a perseverance that would grace a novel, till fortune smiled upon the parties, and when 45 the lady was married. The discharge had proceeded regularly as to time, quantity, and symptoms, up to the period of marriage, but subsequently it never reappeared. As this sudden cessation coincided with gastric symptoms, with a distension of the abdomen, and, above all, with a great anxiety for children, the patient was considered pregnant, and carefully watched for many months. When the illusion was destroyed, the lady became disconsolate; and, punctilious in her notions respecting honour, she brooded over the possibility of her husband supposing that the courses had stopped previous to her marriage. After a minute investigation of the case, I intimated my conviction that she was in perfect health, and that the monthly flow had ceased. The patient would have given all she possessed to have been able to obtain another interpretation of the fact, and left dissatisfied. About a year afterwards, I was asked to see her again, and learned that, having consulted some one else, she had taken steel, purgatives, and strong medicines, with port-wine and meat twice a-day, without effect for the first few months, but then she had a terrific flooding. She subsequently had continued sanguinoid discharge for several months, which induced a state of great emaciation and the usual symptoms of uterine disease. The patient improved; but her nervous system never recovered the effect of an ill-advised treatment; and, to use the mildest term, she is at all times in a highly hysterical state.

Since this was published in my First Edition, several very

similar cases have come under my observation, and they deserve to be taken into serious consideration, as they emphatically proclaim the danger of marriage at this transitional period of woman's life. It is a crisis and time of danger in which nature should be allowed to work out quietly the metamorphosis of woman from one state to another, and, if interfered with by marriage, the results are frequently fatal. The use, or rather the abuse, of emmenagogues, or forcing medicines, at this period, would be a subject alike interesting and painful to the medical moralist; but it is better to drop the curtain on many of the wounds for which relief is sought.

Besides the various methods of treatment, there are measures which constitute part of the hygiene of the reproductive organs, which can be trusted to the discretion of women. Lotions of water, or of linseed tea, tepid or cold, 10 to 20 grs. of acetate of lead, in a pint of spring water, may safely be used 2 or 3 times a day. Vaginal injections and enemata, with tepid or cold water, are beneficial in allaying irritation, and the following puff powder may be freely used after their application:—

Camphor, carefully powdered	3vi
Acetate of lead	3i
Starch	3ii
Essential oil of bitter almonds	ʒx

The tepid bath at 92° to 95°, prolonged for an hour, twice or three times a week, will be very useful. Repose will permit these measures to have their full effect, so it would be well to recline on the sofa for several hours in the course of the day.

HYGIENE OF THE DIGESTIVE FUNCTIONS.—Having shown that the debility often experienced at the c. of life depends upon a shock felt by the nervous system, or upon the system being oppressed by an overplus of blood for which there is no longer a monthly drain, it is rational that from the very

first appearance of the irregularities which characterise this epoch, women should curtail, rather than augment, the amount of food and stimulants to which they have been accustomed. When in the family-way or nursing, or so long as the m. flow remains regular and abundant, many women can, without inconvenience, take meat 3 times a day, and beer and wine at both luncheon and dinner ; but when the surplus blood produced by this high feeding can neither be employed nor regularly ejected, it increases all the sufferings of the c. of life, and either prevents or diminishes the efficacy of remedial measures. I should be ashamed of insisting on anything so self-evident, if I were not often consulted by plethoric patients, to whom generous diet had been recommended to relieve the nervous symptoms of which they complained. To women of this type especially do my observations apply, and their breakfast should consist of toast or bread and butter, with tea, coffee, or cocoa ; they should take but *one* dinner in the day, at whatever hour may suit, but, should it be late, a slight luncheon of bread and butter, cake, or biscuits, with a glass of lemonade, ginger-beer, or soda-water, may be taken. Their dinner should be a plain meal ; fish, and white meats, such as fowl or veal, should be eaten, in preference to beef or mutton ; more of the crust than the crumb of the bread, and jellies and ice in preference to puddings. If, on the contrary, all sorts of farinaceous food, pastry, and cakes, be indulged in, and ladies take more than they require, the natural consequence will be a desire to prolong sleep, a distaste for exercise, an overloaded state of the organs of the body, congestions, bleedings, inflammations, and apoplexy, or they will become distressingly stout. It would be better for both stout and thin to make their principal meal at the fashionable luncheon-hour of 2 o'clock, in order that their last meal may be light, which can well be managed, even if the usages of society should require a lady's presence at an 8 o'clock dinner-table.

Two or three cups of tea, with cake or bread-and-butter, may be taken if the dinner-hour be early, and a cup of sago, arrowroot, or something equally light, for supper; but those who dine late should avoid suppers. Ripe fruits and vegetables may be indulged in to any amount not interfering with digestion. While those who have a tendency to become fat require different food, sleep, and exercise to those who continue thin at cessation, both should beware of giving way to those sensations of internal sinking and exhaustion to which all are equally subject, and by no means to seek a comfort for languor, weakness, or nervousness, in wine, cordials, and spirits, by which a temporary support only can be obtained at the expense of an increase in the faintness, flushes, perspirations, and nervous symptoms. There is no habit fraught with greater ill-effects; and although prescribing medicated spirits is now gone out of fashion, and carriage-draughts are not in so much request as they used to be, still I feel convinced that it is not unnecessary to enforce this caution.

The system requires soothing by medicines and regimen, not stimulating by spirits; but I have known instances of women who, by a misinterpretation of their sufferings, have gradually so increased their consumption of wine or brandy, that habits of intoxication have been induced. One or two glasses of sherry, claret, or champagne, is an average allowance, either alone or combined with seltzer-water; but some of my patients have been obliged to discontinue even this small quantity, on account of its affecting the head. Effervescing draughts, such as effervescing lemonade, ginger-beer, &c., are well indicated; coffee should be made weak or avoided, as it is decidedly more heating than tea, and tea should be used in moderation. Several of my patients have prolonged their sufferings by ringing at every hour of the day for tea. Ten or twelve cups of strong tea in the 24 hours must tell injuriously on the nervous system. Some of the plethoric type would do well to abstain, for a time, not only

from wine and coffee, but also from pepper and spices: when I meet with a docile patient, I sometimes borrow the regime of the homœopathists, without their globules. Owing to an increase of fat in the omentum and lining of the abdominal walls, as well as to frequent flatulence, the abdomen often becomes very protuberant, in which case I have often given comfort by advising a light, elastic, abdominal belt, such as are made by Mme. Caplin, of Berners-street. Tight lacing, hurtful at all times, is perhaps most so at cessation, as it favours the congestion of the abdominal viscera; though nobody will deny the necessity of giving them proper support by well-contrived stays, particularly when the abdomen and the breasts are pëndulant.

HYGIENE OF THE CUTANEOUS FUNCTIONS.—With a view of preserving health the bath should be used at least every week by those who are at the c. of life, and more frequently by those who suffer much from profuse perspirations. The water should be sufficiently warm to impart a grateful sensation, from 92° to 94°, the patient remaining in it half an hour or an hour; and if there be any tendency to headache, the head should be sponged with cold water. If employed before cessation be fully established, the time of the flow should not be chosen to take the bath, as it might produce flooding. A cosmetic bath may be made by taking 2 lbs. of barley, or bean flour, or meal, 8 lbs. of bran, and a few handfuls of borage leaves, and boiling these ingredients in a sufficient quantity of water. This both cleans and softens the skin. Long-continued gentle friction of the painful part by a warm affectionate hand is often of great use. While watching in Eastern countries the long-continued and gentle rubbing of the limbs and soles of the feet of the rich by their attendants, I could not help thinking that the process might, perhaps, be less due to the mechanical friction than to some kind of influence on the nervous expansions with which the skin is so abundantly supplied. Rubbing until the skin glows, or the

actual grooming of the human body, may be very useful to improve the health of scrofulous children, or chlorotic girls, but it is not adapted for women at this period of life.

At cessation the vicarious functions of the skin are so important as to require its being covered as much as possible ; and, when there is a great tendency to perspiration, thin flannel should be worn immediately over the chemise, and even over the nightdress in winter, when the patient perspires profusely in bed, otherwise she may be chilled by any change of posture.

HYGIENE OF THE MUSCULAR SYSTEM.—Exercise is extremely useful at the c. of life, for three reasons. 1st. It relieves the congestion of the internal organs, transferring the blood from them to the limbs. 2nd. It has a depletive effect, causing the skin to perspire more, and the kidneys to excrete more urea. 3rd. It expends accumulated nervous energy.

1st. If the late-hour exercises of civilized life are dangerous to all, particularly to the sanguine,—gentle, regular, and long-continued exercise in the cool of the day is very beneficial.

2nd. Dr. Leyman found that, by substituting violent for moderate exercise, the relative quantity of urea in the urine varied from $32\frac{1}{2}$ to $45\frac{1}{2}$; and Mr. Simon found that after two hours' violent exercise, the quantity of urea in the urine passed afterwards, was double that contained in the morning urine. This may be one of the reasons why some plethoric patients derive benefit from exercise carried to a certain degree of fatigue, as recommended by Auber.

3rd. Exercise acts by exhausting those redundant energies which, however little understood, when unemployed produce the fidgets, nervousness, temper, hysteria—a sliding scale which so imperceptibly leads to more serious mental disorders that its successive stages pass unnoticed until the desolating climax demands strict inquiry into all that relates to it.

The observations relative to exercise apply more particu-

larly to walking ; driving in an open carriage is likewise good, but horse-exercise should be left off at cessation ; indeed, its utility in favouring the m. flow sufficiently points to the discontinuance of the practice during the time preceding and following the change, for then it is likely to cause flooding, piles, and leucorrhœa.

HYGIENE OF THE NERVOUS SYSTEM.—It cannot be too often repeated that nervousness, under every shade and type, may be anticipated at this period, and should be prevented by suiting the habits of life to the changes progressing. It is therefore sufficient to mention that the sufferings of this epoch will generally be increased by frequenting balls, routs, operas, &c., when, in addition to the numerous stimuli to be encountered, hot and impure air must be breathed. The precepts already given bear indirectly on the abatement of nervousness ; but I wish to show how susceptible the nervous system is to the danger of sudden bad news, or to any powerful impression, and for that reason I take my examples from the lower orders, whose nervous system is the less excitable.

M. N. was well and regular up to 50, when she went to see a neighbour's child, who was severely burnt, and a dreadful flooding was the consequence. Hearing suddenly of the death of her husband brought on a severe flooding in S. L. In A. B. the m. flow suddenly stopped at 45, on her first acquiring the conviction that her husband was insane ; and in several instances, has the news of the sudden death of a husband caused early and sudden cessation. Perhaps the most curious effect of the mind on the body, at this period, was lately published in a French journal. A highly nervous lady, aged 48, had ceased to menstruate 4 years, when she attended a sister during a protracted and painful labour. A few hours after it was over, she was herself taken with similar pains, which produced flooding for several days. Three days after this ceased, the breasts swelled, and a milky fluid came from the nipples. B. de Boismont and others have likewise seen

flooding at cessation produced by some strong emotion, or a sudden fit of anger.

Sleep should not be too freely indulged in by those who belong to the plethoric type; thin and nervous women, on the contrary, may be encouraged to take as much as nature will give them,—even a siesta after meals may be allowed, as sleep is for them the best restorative, and an anti-spasmodic of heroic force.

In obstinate sleeplessness depending upon nervous irritation, a warm bath, before bedtime, is often as serviceable at the c. of life as in infancy. More than once, in cases of great insomnia, I have seen the patient wrapt in cotton wool from head to foot, which was said to impart comfort, warmth, and sound sleep.

Travelling is a great strengthener of the nervous system, for it places the patient in entirely new circumstances, every one of which makes a fresh call on her attention, solicits her interests, captivates her faculties, and completely leads her from trains of thought, to which, perhaps, she had been long enchained. In addition to this, the exercise of various kinds which is willingly taken gives increased vigour to the muscles of the body, and therefore to the brain itself; the mind is consoled by the probability of finding health by an agreeable residence at some watering-place, it feels under the guidance of medical authority, and resumes peace and tranquillity. Indeed, all that has been said in praise of baths, exercise, and the advantage of a studious cultivation of the pleasures of nature, rather than those of society, by women at the c. of life, will clearly point out how their combination may be made serviceable for the cure and prevention of disease at this epoch. Those blessed with ample fortunes can easily avail themselves of this provision safely to get over this critical period, and remodel their constitution so that it may endure for many years. Mineral waters are active medicines, and should never be taken without advice, both of the usual medical adviser, and of one well acquainted with the spring which has been selected. My

remarks on this subject will be found in a previous chapter, wherein I have expressed my high estimation of the waters of Aix en Savoie.

MENTAL AND MORAL HYGIENE.—During the c. of life, the nervous system is so unhinged, that the management of the mental and moral faculties requires great attention, and often taxes the ingenuity of the medical confidant. The study of the patient's character will teach him, however, what occupation and pursuit is most likely to engross her mind, and effectually replace those of former times. If he be not prepared to be at once a divine, a moralist, and a philosopher, without ceasing to be a physician, his medicines will, in some cases, be of little use. It cannot be wondered at that the full conviction that age has stamped them with its first irrevocable seal, should cast a gloom over the imagination; but in well-trained minds it will soon be dispelled, by the knowledge that this epoch proclaims an immunity from the perils of child-bearing and the tedious annoyances of a monthly restraint.

The natural good sense of many will show them how the notion that after this period little remains to console women for the anxieties and troubles of life, is a *pagan* idea, suited to the position allotted to them in the civilization of Greece and Rome, where they were seldom considered worth more than to amuse men and to bring forth children; but this cannot apply to women after their social emancipation by the doctrines of Christianity. They should be shown that the importance of their position after the great change, may be inferred by the length of time allotted to them after its occurrence, and the singular immunity from disease which is often observed after that period. They should be reminded that many intimate sources of pleasure are attached to every age, but that it would be unfair to ask of one period the pleasures allotted to another.

“Qui n'a pas l'esprit de son âge,
De son âge a tout le malheur.”

Besides the vast improvement in health, it must not be thought that the c. of life implies the loss of all personal attractions. The beauty of youth charms; that of mature age excites admiration; but in many women there is at the c. of life and long after, an autumnal majesty so blended with amiability, that it fascinates all who approach them. To those fired with a little noble ambition, it may be safely said, that the home government of society, from Almack's down to the lowest of our social strata, offers a wide field of employment to women after this period of life. Many never think of cultivating their minds until they find their influence fading with their charms, and then set about acquiring a less perishable empire, and employ this period of freedom in literary pursuits. Others govern with discretion that circle of society, limited or extensive, in which they have been placed; becoming the guides, the supports, and mainstays of both sexes in the difficulties of life. Indeed, it would not be too much to say, that in no dwelling can the discordant elements of society be harmoniously blended without the authority willingly conceded to age and sex. It is a matter of history how society has been influenced by the drawing-rooms of *Mme. Lambert*, *Mme. de Tencin*, *Mme. du Deffand*. Those acquainted with French society at the present time will remember the influence of the late *Mme. Recamier* over a large circle of talented friends; and during my residence in Paris I have myself frequently witnessed the benign influence of *Mme. Swichine* prompting those around her to what was great and noble; guiding many in the difficult paths of life; healing wounds caused by inexperience; and making many bless her for the happiness they now enjoy. This brings me to the noblest motive to be offered to the laudable ambition of women—that of doing the greatest amount of good to the greatest number of their fellow-creatures. Time dulls the eye, robs the cheek of its bloom, delves furrows in the forehead, but cannot quell the seraphic fire burning in the heart of women, prompting

them to deeds of charity, and to heal the deep wounds which afflict society. Those who have attained their sunset without having been granted the anxious though desirable vicissitudes of wedded life, even if destitute of relatives, or unfortunate in friendship, may still find in the various forms of unmerited affliction which fill our country cottages, or the hovels of our populous cities, that whereon to expend a warmth of feeling, an energy of self-sacrifice, which the sophisticated state of society has not permitted to flow into their natural and more grateful channels. Why then should some women, sensible in everything else, be unable to accept their new position, and, instead of kind and charitable, become, at this period, peevish, harsh, dismal, and viewing everything through a jaundiced veil?

The most distressing appeals to medical sympathy are made by those who, when unnerved by the c. of life, find themselves alone in the world, bereft, when most needed, of the solace of filial piety, or the gushing sympathies of conjugal affection. One can only at first, respond to such appeals, with a sympathizing look and a silent pressure of the hand; but should tears burst their bonds, lightening the suffering spirit of half its load, sweeping away black sorrow, disquietude, and trembling doubts, then it may be hinted that time steals even sorrows from the heart, doubtless because they are sweeter than joy, and that after a brief period nothing will remain but calm judgment and the unmoved remembrance of past goodness, where it was once thought that impassioned love and devoted tenderness must be eternal. The best mode of affording relief, is to discover some kind of occupation capable of engrossing the sufferer's attention, such as music, gardening, the education of a relative or of an adopted child, or the management of a school, or some other charity. The continued friction of social duties will, in time, rub off the asperities of character, and restore peace and tranquillity to the troubled spirit. Every effort should be made, in such a case, to prevent brooding and self-absorption, for the mind

may gaze so long on one object that the moral vision may become affected with the same disorder which befalls the bodily eye when fixed too long on one colour, surrounding objects losing their own colours, and shining only with unnatural tints.

“Universal plodding poisons up
The nimble spirits in the arteries,
As motion and long-during action tires
The sinewy vigour of the traveller.”

CHAPTER VI.

DISEASES OF THE REPRODUCTIVE ORGANS AT THE C. OF LIFE

TABLE XXII.

*Liability to Diseases of the Reproductive Organs in
500 Women.*

Flooding, a terminal	82
Floodings, successive	56
Leucorrhœa, frequent, at irregular intervals. .	146
„ monthly	12
Remittent menstruation	33
Vaginitis	4
Follicular inflammation of the vulva	10
Inflammation of the labia.	4
Ulceration of the neck of the womb	9
Hypertrophic inflammation of the neck of the womb.	2
Prolapsus of the womb.	5
Uterine polypi	4
„ fibrous tumours	4
„ cancer	4
Chronic ovarian tumours	3
Habitual deposits in the urine	49
Pain and difficulty in passing urine	9
Incontinence of urine	4
Erectile tumour of the meatus urinarius . . .	2
Irritation and swelling of the breasts	14
Milky or glutinous secretion of the breasts . .	2
Hard, non-malignant tumour of the breast . .	2
Cancer of the breast.	1
Perineal abscess	2
Total	463

The occurrence of some form and degree of suffering in the reproductive organs in 463 out of 500 women at the c. of life, shows this period to be one of turbulent activity for those organs; and though they are less liable than before to acute inflammation, they are more than usually so to congestion, hæmorrhage, mucous flows, and neuralgic affections. When the c. of life is over, the rule is, that the reproductive organs become more or less atrophied for the rest of life. If they become endowed with activity, it betokens a lower order of vitality, denoting a deterioration of the plastic force. The ovary, the womb, the breast, become more frequently transformed into cystic, fibrous, or cancerous growths. In the following pages, I intend to comment on the affections of the reproductive organs, inasmuch as they are modified by the c. of life and old age; but I disclaim all idea of writing a complete treatise on these or on any other of the diseases of these epochs.

DISEASES OF MENSTRUATION AT THE C. OF LIFE.—Flooding seems to be the only disease of menstruation at this period which has been carefully studied by medical men; but besides flooding there is the *stillicidium uteri*, or continual dribbling from the womb, lasting for weeks or months, and effectually undermining strength. This will be considered when I am treating of uterine affections. The pains accompanying menstruation become unusually intense, and these will be considered in my chapter on “diseases of the nerves.” I now propose to show the possibility of restoring the m. flow to a comparative state of regularity, for at least a certain time. Generally the m. flow will appear every 2nd, 3rd, or 4th month, and if the patient be left to the efforts of nature, she will suffer from headache, nervousness, &c., until partial relief is afforded by the recurrence of the m. flow. I give, first, blue pill, or such constitutional remedies as may be required; then, mild tonics and sedatives, tepid vaginal injections, occasional baths, and I sometimes remove 3 ounces of blood

from the arm. This not only diminishes suffering and imparts strength and *embonpoint*, but it often causes the m. flow to come every 4, 5, or 6 weeks, for the ensuing months. The cases alluded to were evidently cessation cases, for although the flow returned with greater regularity, it was more scanty or abundant than usual, and attended by flushes and other symptoms of cessation. If the patients left off their treatment, the m. flow arrived only every 3rd or 4th month, becoming again, to a certain extent, regularized under its influence. This plan places women in the position of those in whom the flow ceases gradually, but I do not agree with Dr. Ashwell, who observes,—“Other measures of a derivative kind will naturally suggest themselves, as mustard hip-baths and pediluvia, frictions, with stimulating embrocations, and the flesh-brush, the continuance of sexual intercourse, and the encouragement, by any gentle means, of the catamenial flow.”

Instead of seeking to perpetuate the pelvic congestion by mustard pediluvia and hip baths, I should give whole tepid baths. Blood had better be taken from the arm than the womb, and sexual intercourse should be avoided as much as possible. The following case will illustrate the precepts I have given :—

CASE 13.—*Regularization of the m. flow after a long period of irregularity.*—Mary B., tall, stout, with brown hair, and blue eyes, was 48 when she came to the Paddington Dispensary, February 6th, 1851. The m. flow appeared at 13, and continued very regular, without unusual symptoms, till 25, when she married. She conceived 3 times, had no children, and was regular until the last 2 years, when the m. flow sometimes came every fortnight, at others every 2 or 3 months, was sometimes scanty, at others very abundant, lasting 10 days. During this time she suffered much from headache, and felt heavy, stupid, sleepy, dizzy. Flushes and perspirations were also troublesome. The patient took the com. camph. mixture before meals, the carbonate of soda after, 2

aloes and soap pills every other night, and a scruple of the sulphur and borax powder at night. After taking these medicines for a little time, the head symptoms abated, and did not again trouble her. When I saw the patient in December, I was told that the m. flow had come regularly every month until September, but since then it had disappeared. In 1854, when I last saw her, the m. flow had not re-appeared, but her health had continued good.

It was certainly the mild but appropriate medicines, which, in this case, regularized the m. flow after 2 years of irregularity ; and I attribute the patient's subsequent good health to my having induced a more regular mode of action previous to cessation. I have known the m. flow become regular for a year before cessation, after an absence of 10 months, accompanied by evident symptoms of the c. of life.

REMITTENT MENSTRUATION.—Instead of returning every 2 or 3 months, the m. flow may return every 2 or 3 weeks. This occurred in 26 cases out of 383, in whom the m. flow had almost ceased. It is unnecessary to point out how weakening and how irritating to the nervous system is this too frequent recurrence, which can, in most cases, be prevented by the exhibition of sulphate of quinine ; a mode of practice I have shown to be eminently useful in earlier periods of life, at p. 50 of my work on *Diseases of Women*. I generally prescribe 3 grs. of sulphate of quinine, 2 of ext. of hyoscyamus, and 1 of ext. of aloes, in a pill to be taken every night.

FLOODING.—Mauriceau, Levy, and others, look upon flooding, after the apparent cessation of the m. flow, as indicating cancer of the womb ; Astruc, Gardanne, and some modern pathologists, consider it to depend on ulceration of the womb or its chronic hypertrophy ; but as I have known women, free from all uterine symptoms, and in every other respect well, have floodings from a fall, from suddenly hearing bad news, as the death of a relative, it cannot be said to depend uniformly

upon ulceration of the neck of the womb. To test the accuracy of such an opinion, I have examined 20 such patients with the speculum, and in 2 only could I account for the floodings by uterine ulceration. This brings me to the diagnosis of flooding at the c. of life.

When flooding occurs at a catamenial period, as a critical discharge subsiding completely after a few days, every one recognises it as depending on the c. of life ; likewise if successive floodings occur at successive m. periods. When flooding occurs a few months or even years after the absence of the m. flow, and is accompanied by flushes, perspirations, and other symptoms of cessation, without being preceded or followed by those of uterine disease, it is fair to suppose that it depends upon the c. of life, and does not in any way indicate structural lesions of the womb ; but whenever it does not appear as a downright critical flow, when it is followed by a lingering sanguinolent discharge, with returns of flooding at irregular periods, with leucorrhœa and other uterine symptoms of disease, the case is doubtful, and no medical man can conscientiously give a diagnosis without a previous examination. I have seen women reduced to the last stage of debility by a uterine sanguineous flow being allowed to continue, more or less rapidly, for 2, 3, or 4 years without an examination being made, because these patients were at the time of life when the m. flow usually ceases. Quinine and port wine were given, and change of air recommended ; but no astringent vaginal injections, not even cold applications, had been made. I have now under my care a lady, with cheeks as white as my paper, who has been flooding more or less for the last 2 years, being repeatedly told there was nothing to be done, that it depended on the c. of life. On examination, I found a polypus hanging to a cavity of the womb by a pedicle as thick as my little finger. Dugès mentions that, in a case where the m. flow returned periodically after having ceased, he found a large tumour between the bladder and

the uterus, which was pressing and irritating the womb. In other cases of irregular flooding at the c. of life, ulceration of the neck of the womb will be found, as in the following case :—

CASE 14.—*Flooding from ulceration of the neck of the womb.*—Frances W. applied for relief at the Paddington Dispensary, July 1, 1850. She was 46 years of age, of sanguine temperament, of middle stature, and a washerwoman. First menstruating at 17, she continued to do so regularly and very abundantly, for seven days every month. She married at 21, and had nine children, the last at 44. The last was a bad labour, and she has suffered ever since from pain in the back. Two months previous to her admission, instead of menstruating as usual, she had a *show* every day ; a fortnight before she applied for relief, she had a sanious discharge, and on the day of her admission, she had suddenly lost about a pint of blood. I looked on these phenomena as indicating cessation. A few days after this she was taken with intense flooding, and in the space of 16 hours she had lost from 2 to 3 quarts of blood. Having been called to attend a patient some miles from town, Mr. Hammond, of Paddington-green, kindly visited her during my absence, and on my return I found her reduced to the greatest state of debility. There was a very weak pulse, fainting, and jactitation. As the flooding still continued, I passed a lump of ice up the vagina, ordering it to be replaced by another so soon as the first was melted. I also applied ice to the hypogastric region, and a bandage, as to a woman recently confined. The flooding soon stopped, and was followed by a muco-sanious discharge. A digital examination, made during the flooding, convinced me that there was a serious organic disease of the womb, and from the irregularity of the internal surface of the neck, into which the finger easily plunged, and from the hardness of the tissues, I was afraid the disease was cancer, but on making a specular examination a fortnight after, I

found the orifice of the neck of the womb surrounded by lobules about the size of a large pea, and the inner surface of its neck highly vascular, in some portions ulcerated, and the whole of the organ much engorged. Being convinced from ocular inspection that the disease was of a purely inflammatory nature, I adopted the treatment most useful in such cases. I touched the surface with the solid nitrate of silver, and a week after I gently applied the potassa fusa c. calce to the same surface; after this the swelling diminished, and the structures put on a healthy aspect. Six subsequent applications of nitrate of silver cured one of the most severe examples of uterine disease I have ever met with. The patient soon recovered her strength, but menstruation remained irregular. Dec. 12, she again came to the Dispensary because the m. flow had lately continued for a fortnight, and had been very profuse. On examination, the womb was found healthy. June 23, 1851, she returned, complaining of feeling heavy and sleepy, giddy and queer in the head. The face was flushed, the eyelids were puffy, and spotted with red, as previous to the flooding last year. I ordered 10 oz. of blood to be taken from the arm, and comp. coloc. and cal. pills, which relieved the symptoms. Oct. 23. The patient had been regular up to the last few days, when she had only a pink show, with sickness, fainting, and red spots on the skin, like the eruption of measles, which soon disappeared. March 20, 1856. This patient came to me for a rheumatic affection of the right elbow joint. The m. flow had come every 3, 4, or 6 months. She was in much better health, stouter, and stronger.

The critical flooding of the c. of life may be mistaken for that caused by fibrous tumours of the womb, or by uterine cancer. Who has not been consulted by women of 45 in every appearance of health for flooding, and has not been grieved to find such cancerous lesions of the womb as warranted the conviction that the patient's days were irrevoc-

cably numbered? Louis and Valleix have mentioned that, before any visible cancerous changes have taken place in the womb, profuse menstruation will sometimes be the first symptom of the complaint. This is an additional reason why profuse menstruation should be frequent at cessation. No other cause of flooding is wanted besides the great predisposing cause already discussed; but it may sometimes be occasioned by a fall, a fright, a violent fit of anger, by sneezing, or by connexion. Fothergill has seen an intermittent fever at cessation give rise to menorrhagia every month. Flooding may be symptomatic of complaints affecting the portal circulation. Hippocrates observed that gastric fevers tend to produce metrorrhagia. C. Strack confirms the observation, and B. de Boismont says that hepatitis and biliary congestion often induce uterine hæmorrhage.

Beyond a certain loss of blood which must be estimated by the patient's pulse, by the expression of her features, by her feelings of strength or weakness, the further flow is dangerous. If those who, at this period, lose too large quantities of blood, do not quickly repair the loss, they can seldom do so; and, although not completely invalided, they remain pale, chlorotic, and do not enjoy the degree of strength with which they were previously gifted. Flooding likewise accounts for the nervous disorders of some women. There is, however, a certain amount of danger in stopping the critical flow too soon, particularly in those who are plethoric, or who have been accustomed to lose much blood at the m. periods. J. Frank says he has often seen apoplexy brought on by means injudiciously used to stop the floodings of cessation; and two cases in my own practice confirm this remark. F. Hoffman has seen apoplexy at the c. of life in women subject to an abundant flow. This sufficiently shows that it is wrong to let flooding at the c. of life take its chance, and that it would be well for women always to consider it a complaint requiring medical advice. The treatment of flooding during the attack

should be directed so as to check the flow, by placing the patient in the horizontal position on a horse-hair mattress, with light covering, in a cool room ; by giving cold lemonade made with the *mineral* acids, alum whey, or nauseating doses of antimony ; or by making her grasp a lump of ice, for the cold thus transmitted to the nerves of the womb may suffice to stop the flow. Local measures may be required, such as iced vinegar and water to the abdomen, and to the inner parts of the thighs ; a lump of ice, the size of a hen's egg, applied to the neck of the womb, or powdered ice, according to the plan suggested by Dr. James Arnott. The injection into the vagina of a strong solution of tannin, or of an emulsion, containing spirits of turpentine, has been sometimes successful ; and Dr. West has shown the utility of intra-uterine injections of a solution of gallic acid, or an infusion of matico, to stop continued flooding after all other means had failed, in a woman of 51. It has been stated that, when bleeding, ice to the hypogastric region, &c., have failed to stop flooding in nervous patients, the tepid bath has been successful. B. de Boismont also praises baths, the temperature of which is gradually lowered. Caseaux has seen many women die several hours after puerperal hæmorrhage had been stopped, too little blood having been left to stimulate the brain and nervous system, so as to enable it to perform the indispensable vital acts of respiration and circulation. In such cases he recommends circumscribing the blood into the smallest possible space, by bandaging the four limbs, and by pressure to the aorta. Similar measures might be useful at the c. of life.

It has been pointed out that bleeding often prevents actual danger and subsequent ill health, especially in the plethoric, and those accustomed to menstruate profusely ; but it is not always necessary to bleed the month following a flooding, nor the one after that, unless there be signs indicating congestion. It was for continued flooding that Fothergill, Hufeland, Lisfranc, &c., recommended the plan of taking gradually a less

quantity of blood at successively longer periods, and the practice will prevent much disease. By bleeding, we take away the material of flooding; but it must not be forgotten that hæmorrhage as often depends upon the perturbed action of the bloodvessels as on plethora; and although other measures may be indispensable, the return of many hæmorrhages can only be prevented by a judicious use of sedatives. My sedative mixture, a full dose of Battley's solution, or of a solution of acetate of morphia, taken at night, will therefore be found useful; and as the blood is directed with such an impetus to the womb, there must be some centre of morbid attraction there which requires to be lulled and stupified, so that it may no longer disturb the calm tenor of the circulation. This may be done by giving sedative injections by the rectum, until the nervous irritability of the reproductive apparatus be quelled. Saline purgatives and small doses of nitre are also indicated; but it should be borne in mind that at the dodging time, or after cessation, no centrifugal tendencies of blood should be encouraged by pediluvia, hip-baths, mustard poultices, or by similar applications to the lower extremities. The regimen must be carefully regulated.

LEUCORRHOEA at the c. of life is, like flooding, a critical discharge, the indiscreet interference with which will often cause a more serious complaint. If the discharge becomes too abundant the rule adopted is, not to check but to regulate, by increasing the solubility of the bowels and the habitual moisture of the skin. Frequent lotions with tepid water may be recommended, but I very rarely order cold injections, or when these are necessary, seldom with the addition of any astringent substance; after a time injections of water, containing 1 drachm of acetate of lead or alum to the pint, are useful. Leucorrhœa seldom occurs in after life.

VAGINITIS.—I have seen several cases of vaginitis at the dodging time, and one case 3 years after cessation. There was great internal heat, bearing down pains, vesical disturb-

ance, scalding when the water was passed, and an acrid discharge. The gentlest digital examination was painful. Before ordering vaginal injections, it is better to reduce the inflammation by a saline purgative, and copious dilution with imperial, or linseed tea; by large, thin, warm, linseed-meal poultices applied to the lower half of the abdomen; by lotions, with linseed tea, adding to each pint 1 or 2 drachms of acetate of lead; by the rectal sedative injections; and by tepid baths every other day, prolonged for an hour. In a few days the lotion may be used as a vaginal injection. According to Huguier, the vulvo-vaginal glands are not liable to inflammation after 45.

NYMPHOMANIA is the almost irresistible desire to relieve the irritation of the pudenda by friction. It differs from erotomania, with which it is often confounded; for, in the last, the mind is viciously inclined, and without any pathological stimulus of the external organs of generation, it stimulates them to satisfy the desires it has awoke. I would willingly ignore so painful a subject, if I did not believe that, by drawing attention to the best means of curing the pudendal affections leading to nymphomania, distressing disorders may be relieved, the contamination of the mind prevented, and that my remarks may cause marriage to be deferred in many cases, which, in reality, require medical treatment. With regard to the frequency of nymphomania and erotomania at the c. of life, it is obvious that only the worst cases come to our knowledge. B. de Boismont met with 6, Mathieu cites several, one in a lady of 50, and another in one of 60 years of age. Dusourd noticed two cases of erotomania, and a third where nymphomania was caused by an herpetic eruption of the vulva. Louyer Villermay cites two cases occurring after cessation. Mathieu and Roubaud believe it of frequent occurrence at the c. of life, and appeal to the old French proverb—*Le diable de 40 ans, si habile à tourmenter les femmes*. I have met with no cases of erotomania, but

I believe that the milder forms of nymphomania are more frequent than is generally supposed. Before seeking to understand how it is produced, it is curious to note that, while the Greeks considered it the result of divine vengeance for neglecting the worship of Venus, it was thought, in the middle ages, to be a proof of Satanic influence, and, at the present time, to be a result of local disease, or of mental aberration. The local disorders which most frequently lead to nymphomania are, follicular inflammation of the vulva, prurigo pudendi, herpes, and vulvo-vaginal neuralgia. These are the complaints which morbidly excite sexual desire, and fatally lead some to marriage and others to self-abuse. Before indicating their treatment, I may state, that cases of nymphomania become more and more rare in after life; their occurrence at all, as well as the numerous examples of lasciviousness in girls before puberty, indicate that there may be sexual desire without ovulation, and possibly without any ovarian action; for Gall has adduced facts to prove that sexual desires may survive the destruction of the genital organs. Sexual desires in such cases merely show the action of the erotic mind over nerves capable of serving erotic purposes.

FOLLICULAR INFLAMMATION OF THE LABIA AND CLITORIS.—

I have seen several severe cases of this distressing form of disease occurring at the c. of life, and relapsing frequently during the 3 or 4 years subsequent to cessation. B. de Boismont has also met with several. The agony suffered is extreme, and the irritation such as to render the application of the hands imperative, causing the discharge, at other times mucous, to become stained with blood. In the case of a lady, given in a subsequent page, the irritation came on periodically, and then several hard lumps, about the size of a walnut, would appear in the margin of the labia. These swellings never suppurated, but occasionally a vesicle appeared on the skin. In severe cases of this description, there is no exalta-

tion of sexual desires ; on the contrary, connexion is generally abhorrent to the feelings, though it may be otherwise when the affection is slight. The recurrence of this complaint is frequently an indication of uterine ulceration, and some of the worst cases of onanism in young women are the result of undetected uterine disease, which explains the frightful pictures drawn by Tissot and other writers. In a milder degree, I believe metritis to be very frequent at the c. of life, and the patient frequently cures it, by repose, cooling medicines, and lotions. The distressing cases which come under medical notice are tractable to well-planned treatment. Lotions should be made use of every 2 or 3 hours, with water containing half an ounce of acetate of lead, and two drachms of laudanum to the ounce of distilled water, and fine linen should be steeped in the lotion, and frequently applied with care to the irritated surface, using afterwards the following powder :—

Powdered starch	ʒv.
Powdered camphor	ʒi.
Powdered acetate of lead	ʒss.
Essential oil of bitter almonds	ʒxx.

A tepid bath should be taken daily, or every other day, warm water being added, so that the patient may remain in it for two hours, or more, if possible. After the full effect of a saline purgative, a sedative rectal injection should be given twice or thrice in the day ; and at night a scruple of Dover's powder, or of Battley's solution, may be beneficial. Should this plan of treatment fail, it would be necessary, instead of the acetate of lead, to order the application twice a day of a pledget of fine linen, steeped in nitrate of silver, 10 or 12 grs. to the ounce of distilled water. The patient can apply this herself, taking the precaution of putting on a kid glove ; but in some cases it will be necessary for the medical adviser carefully to apply a solution with a paint-brush into the

recesses of the mucous membrane, before its morbid excitement will abate. Trousseau recommends, as a never-failing lotion for this affection, a pint of water, in which is dissolved a large pinch of a powder made with equal portions of deutochloride of mercury and sal-ammoniac. He also recommends two vaginal injections a day, then one of a solution of deutochloride, ʒi. to the pint of cold water; but I have found smaller doses equally effectual.

PRURIGO PUDENDI.—This is by far the most common form of prurigo, and after cessation in advanced life it is often accompanied by prurigo of the whole cutaneous surface, or prurigo senilis. This is a most distressing disease, for it has been correctly remarked by Lorry, that the mere local irritation is often succeeded by a fearful desire for sexual gratification. I have seldom met with severe cases, but B. de Boismont, Gibert, and Mr. T. Hunt, note prurigo and eczema of the vulva and anus as not unfrequent at the c. of life. The following case is derived from Mr. T. Hunt's practice.

CASE 15.—*Herpetic affection of the labia at the c. of life.*—A single lady of 50, who had never menstruated, suffered from irritation, chiefly confined to the left side of the preputium clitoridis, which was in a state of hypertrophy from the constant friction called for by the torments of the disease. As this patient complained also of want of power in the sphincter of the bladder, a careful examination was made, in which it was found that the meatus was larger than usual, and *there was no trace of either vagina or uterus.* When young she frequently had leeches applied to the labia to induce menstruation, but no examination had ever been made with a view of ascertaining the cause of the amenorrhœa, nor was she at all aware, up to the age of 50, that she was the subject of malformation. She had all the other physical characters of a female, together with the modesty and delicacy of mind peculiar to her sex; there was sexual passion, and she would long previously have been married had she not

feared that matrimonial unhappiness might arise out of the extraordinary absence of the catamenia during the whole period of sexual life. She was never conscious of any local pain or fulness at the monthly periods; but she was frequently troubled with head-ache and giddiness at irregular intervals. In other respects her health was excellent; but the pruritus, which was often accompanied with an herpetic eruption on one of the nymphæ, was the great plague of her life. She asserted that nothing but strong religious principles had prevented her committing suicide. Arsenic and other remedies were tried in vain.

Mr. Hunt speaks very favourably of small doses of arsenic given in milder cases, three times a day on a full stomach. Saline purgatives have proved useful; also, prolonged tepid baths, cold baths, cold hip baths, and cold water injections. The lotions recommended for vulvitis will be equally good in prurigo. Ointments with a preparation of zinc, lead, or mercury, may be tried, as well as powders containing calomel and camphor. I have given camphor in various ways, with good effect. Lotions made with the sedative camphorated lotion, or of camphorated vinegar diluted with water, camphor ointments, camphor powders, and camphor sprinkled between the bed and sheet. With Montègre and others, I attribute to nitre a decidedly calming effect in nymphomania.

VULVO-VAGINAL NEURALGIA.—Several of my patients have complained, for a few nights after each m. period, of an intense itching and skin irritation, unaccounted for by any cutaneous eruption. Such cases explain why cessation is sometimes followed by itching of the pudenda, or of the whole surface,—the prurigo latens of Alibert. In some of the most distressing cases of pruritus and perverted feelings, there is nothing morbid to be detected, as in a woman of 60, who was subject to hysterical attacks if a young man came near her, and in whom Bielt could discover nothing amiss, although he

inspected the pudenda with a magnifying glass. Lisfranc, and lately Tanchou, have drawn attention to vulvo-vaginal neuralgia; and the last thinks it occurs most frequently at the c. of life. He mentions the case of a lady of 48, who had never suffered from uterine disease. The m. flow ceased at 46, and ever since she had been afflicted with pruritus and darting pains in the pudenda. These sensations were increased by walking and over-exertion. No morbid lesions could be found to explain the sufferings; but they were relieved by the internal exhibition of assafoetida and valerian, and by the external application of opiates and belladonna.

UTERINE CATARRH.—As might have been expected, acute metritis is rare at the c. of life; but chronic inflammation of the lining membrane of the neck of the womb, to which I have drawn attention in the *Lancet*—1854—is not unfrequent, though it generally remains undiscovered, because the pain and sanguinolent discharge it determines are considered the natural consequences of the c. of life. The treatment is therefore often left to nature, which effects a cure in a few years, whereas the patient's sufferings might often be shortened and alleviated by vaginal injections, or by carefully painting the cavity of the neck of the womb with tincture of iodine, or with a strong solution of nitrate of silver. I suspect this disease whenever flooding is followed by prolonged stillicidium uteri, or where this occurs for many weeks without flooding. I have known it last from 5 to 12 months.

CHRONIC ENLARGEMENT OF THE NECK OF THE WOMB.—This has been noticed as occurring at the c. of life by Gardanne and B. de Boismont. I have seen several cases unaccompanied by more painful symptoms than habitual leucorrhœa, last for years and then disappear, without passing into cancer. Dr. G. Bedford has met with soft engorgement of the body and neck of the womb, giving rise to a prolonged sanguineous drain, which he considers not uncommon at the c. of life. Dr. Forget relates the case of a woman, who was, at this

period, subject to violent flooding, and the extremity of the neck of the womb was covered with a soft crepitating and red tissue, which bled on pressure, and presented all the characteristics of erectile tissue. This woman was completely cured by repeated cauterization of the diseased surface.

ULCERATION OF THE OS UTERI.—This affection is much less frequent than at the previous periods of life. I have only met with 9 cases out of 500. Béclard, Otterburg, and Dr. H. Bennet have observed exceptional cases at, and even many years after, cessation; and the last considers it less amenable to treatment; but this does not accord with my experience. The following cases will give a good idea of the severe forms of uterine disease at the c. of life.

CASE 16.—*Ulceration of the neck of the womb at the c. of life.*—Elizabeth B., a fine, tall woman, of sanguine complexion, brown hair, grey eyes, and a Jewish cast of features, was 51 when she came to the Paddington Dispensary, Nov. 22, 1849. The m. flow appeared at 8, and it came regularly without pain until 17, when she married. She had one child at 27, and was regular until within the last 3 years. For the last year she has had no m. flow, and for the 2 previous years the flow came at the 2nd, 3rd, or 4th month. Her health has lately been very bad, and she has habitually felt giddy, heavy, and stupid. The dorsal pains are worse, and she calls them lumbago. Paroxysms of pain at the womb frequently come on, described as passing from the womb to the ovarian regions, and then darting to the epigastric centre, where the pain is intense, causing sensations of great faintness, accompanied by burning flushes and perspirations. For the last 4 months she has been almost always sweating, and when I saw her, the face and neck were so covered with little drops, that she reminded me of a lump of sugar soaked in water and ready to fall to pieces. The comp. camph. mixture was taken 3 times a day, 2 colocynth pills on alternate days, borax in

scruple doses twice a day. A pitch plaster was applied to the pit of the stomach, and tepid baths were taken; these greatly relieved the patient, and she was discharged March 4th, 1850. May 8th, she returned, and said she felt as if she were in the family way. The breasts had swelled and tingled; the nipples were darker than before, and both circles were interspersed with pseudo-follicles. The body of the womb was not enlarged; its neck was twice the ordinary size, and slightly painful when pressed; there was no ulceration or leucorrhœa. I gave opiate injections to relieve the abdominal pains, and vaginal injections of acetate of lead in solution. The bowels were kept open with sulphur. The patient improved, and July 16th, the m. flow came with great pain. She looked sallow; the legs swelled at night; she complained bitterly of abdominal pains, for which mercurial ointment, with extract of belladonna, was tried, and afterwards tartar emetic ointment; sedatives and tonics were also given. The m. flow continued to reappear at irregular intervals, sometimes lasting one day, at others, a fortnight. Oct. 15th, I made another speculum examination, and detected a small ulceration in the internal margin of the os uteri, which I cauterized with the solid nitrate of silver. Three days after the application the patient had flooding, which lasted for a fortnight, and required the application of ice and the internal exhibition of acetate of lead. After this flooding, nothing prevented the surgical treatment necessary to cure the uterine disease. The abdominal pains abated as the structure of the womb became healthy; but she long continued to suffer from the epigastric sensations first complained of, and from dry flushes, for which, until April 24th, 1851, she took twice a day a scruple of the following powder:—

Flour of sulphur	ʒii
Bicarbonate of soda	ʒiv
Compound ipecacuanha powder	ʒii

In 1854 there had been no return of the m. flow, nor of the uterine complaint.

CASE 17.—*Ulceration of the neck of the womb during the dodging time.*—Sarah A., a woman of the average size, with brown hair and a ruddy complexion, was 42, when, on the 6th of December, 1853, she came to the Farringdon Dispensary. The m. flow appeared at 13, without much pain. She married at 25; had several children, the last at 35. For the last two years the m. flow was so irregular that she thought herself approaching the turn of life. Six months ago she was at St. Bartholomew's Hospital, where disease of the womb was recognised and surgically treated. This relieved her, but she left the Hospital before she was cured. On examination, I found the neck of the womb very painful when touched, its orifice freely admitted the finger; the discharge was yellow, and ulceration penetrated a quarter of an inch into the cervical canal. This was accompanied by intense ovarian pain, coming on in paroxysms, sometimes shooting down the inside of the thigh and front of the leg to the big toe. January 7th. I cauterized the ulcerated uterine surface with potassa fusa c. calce, and afterwards with a solution of nitrate of silver every 7 days. In the interval the patient used alum injections, and was in every way better. February 4th. I repeated the applications of the potassa fusa c. calce, carefully recommending the patient to return in a week to have the ulceration dressed to prevent the womb closing; but I saw nothing of her until May 12th. Feeling so much better, she did not think it worth while to come to the Dispensary, but about a month ago she had the usual pains of menstruation without the discharge, and she was now suffering in the same way. On examining with the speculum, I found the orifice of the womb closed. The ulcerated surfaces not having been attended to, they had united. A livid spot on the distended cicatricial membrane showed where the m. flow demanded exit, and a crucial incision gave issue to about a tea-cupful

of treacly-looking blood. The edges of the incised membrane were touched with nitrate of silver at the time, and several times subsequently. After the ulceration of the womb was cured the m. flow continued irregular, and the patient often suffered from very severe abdominal pains, but these had subsided when I last saw her, in January, 1856, and there had been no m. flow for a year.

TREATMENT OF INFLAMMATORY UTERINE AFFECTIONS.—Nothing can be more erroneous than to consider a leucorrhœal discharge occurring after the cessation of menstruation as indicating serious disorder of the womb, requiring local examination and caustic applications. If, however, the discharge be very abundant, smells offensively, has an acrid action on the skin, and be accompanied by a great amount of lumbar and sacral pains, it is most probably secreted from an ulcerated surface of the womb, and it would be the height of absurdity not to ascertain, by a proper examination, what is the real nature of the case. The foregoing instances sufficiently show how uterine inflammation may be radically cured by those surgical applications which my venerable teacher, the late Professor Recamier, of Paris, first introduced into practice some 40 years ago.

If the case be one of inflammation of the os uteri with erosions, it would be well freely to paint the diseased surface with the solid nitrate of silver, and after this had been repeated once, or more frequently, at 5 days' interval, a solution of the same salt might be applied. In all such cases vaginal injections should be made by the patient 2 or 3 times a day, with linseed tea; a solution of acetate of lead, or of alum, 1 or 2 drachms to the pint. The patient should lie down when using the injection, prolonging its use for 5 minutes at least, using Coxeter's patent syphon syringe. Three oz. of blood removed from the arm of a patient every 2 or 3 months after cessation, may help her speedy recovery. In cases of chronic swelling of the womb, it may be well to try the effect of

painting its neck with tincture of iodine, while the patient takes from 30 to 60 drops of Davenport's syrup of iodide of iron and potassium. The 60 drops contain 2 grs. of each salt; they should be taken through a quill, to prevent the discoloration of the teeth, and the mouth should be cleansed with water, in which a little bicarbonate of soda has been dissolved. I have but briefly indicated the essentials of the surgical treatment necessary to cure local affections, because I am not now writing a work on diseases of the womb; but as the utility of using the strong caustics in uterine surgery has been lately very strongly contested, it would be shrinking from a public duty not to give the profession the result of my experience on this point. I therefore emphatically state that it would be very detrimental to the public good if potassa fusa c. calce and the acid nitrate of mercury were withdrawn from our hands, for, if skilfully employed, their effects are admirable. They not only enable us to cure safely long-standing cases, but often to heal, in a few weeks, uterine ulceration, the treatment of which would last for months, even if the solid nitrate of silver were applied every 5th day. With regard to the possibility of mutilating the neck of the womb by potassa fusa, it is, doubtless, possible; but I have merely sought to obtain from it a superficial eschar, preferring repeated applications, if necessary, to the risk of mischief occurring from a too energetic first application. Thus employed, no mutilation of the neck of the womb has occurred in my own practice, nor have I found it in that of Dr. H. Bennet, whose patients I have been for many years in the habit of attending when he was out of town. If some seek to obtain a superficial eschar from the use of potassa fusa c. calce, there are others well qualified to form a correct opinion, who, in similar cases, think themselves justified in destroying a considerable portion of the neck of the womb. I have seen a practitioner of high standing use the caustic potash with this view; some of his pupils adopt the same plan, which, in the

hands of one, has caused permanent uterine stricture in a lady now under my care. The potassa fusa c. calce should be employed *skilfully*; practice alone gives skill, and all powerful caustics become dangerous weapons in inexperienced hands. The last case shows that even when judiciously used, it may give rise to obliteration of the neck of the womb, if the wound be not repeatedly dressed after the falling of the eschar; but this strong tendency to heal only shows how valuable is the agent, provided its energy be properly directed.

UTERINE DEVIATIONS.—Patients seldom seek advice at the c. of life or after cessation for uterine deviations, but they nevertheless exist. Dr. Saussier de Troyes says, that out of 102 cases of uterine deviations, he has met with 11 women, from 40 to 50, suffering from this disease. I have detected many well-marked cases of anteversion and retroversion at the c. of life and after cessation, but they caused neither hypertrophy, inflammation, nor neuralgia. This shows that women do not suffer from the displacement itself, but from the complicating inflammatory or neuralgic affections—facts calculated to convince the uterine orthopedists of the present time, that they are wrong to consider the displacement as the chief indication of the treatment of uterine deviations, which should be governed by the morbid condition causing or complicating the deviation. I have seen procidentia uteri occur for the first time at the age of 49, to a single lady living in affluence, which could only be ascribed to forcing pains, frequent, though by no means severe, occurring during the doding time.

B. W., aged 65, suffered as much from prolapsed womb after as before cessation, which occurred at 48; she consulted me for flooding, the consequence of a contusion of the prolapsed womb on being knocked down in Holborn.

The very rare cases of prolapsus in old age are explained by the fact insisted on by Kiwisch, that although the womb has become atrophied, it is less powerfully supported by a

weaker and shorter vagina, and is no longer padded by the fat, which, in youth, abundantly lines the pudenda.

UTERINE POLYPI.—They obscure the limitations of the m. period, retard cessation, complicate its diagnosis, and are as frequent at the c. of life as in previous periods. This will be shown by the following table, which embodies Dupuytren's experience, and likewise proves the little frequency of polypi after cessation. Polypus of the womb began in

1 woman from the age of 15 to 20			
10	„	„	20 „ 29
19	„	„	30 „ 39
23	„	„	40 „ 49
3	„	„	50 „ 59
1	„	„	60 and above.

57

UTERINE FIBROUS TUMOURS.—Braun and Chiari at Vienna, Malgaigne in France, and Mr. Paget and Dr. West at home, establish the fact that between 40 and 50, uterine fibrous tumours are generally fatal; and I believe, with Dr. West and Dr. H. Bennet, that most of these polypi and fibrous tumours originated from 30 to 40, though they may have only become apparent at the c. of life. Fibrous tumours retard cessation, and render the occurrence of flooding more frequent, which is not surprising, considering how profuse the m. flow becomes so soon as a fibrous body is developed in the womb. I have a patient, now 51, in whom a large fibrous tumour began at 33; and ever since, the m. periods, though continuing regular, are extremely painful, and she passes a large quantity of blood, looking like treacle. After cessation the tumour may diminish, provided the c. of life has not given it an increased impetus.

S. A., tall, thin, with dark hair, aged 51. The m. flow came at 12, and continued regular but scanty. She married at 21, but never conceived. The m. flow remained regular

until 43, when a fright brought on flooding; the abdomen then swelled, and she was thought pregnant. Flooding continued more or less for 8 years, but it never interfered with her appetite, and only lately with her strength. It has now stopped. The os uteri is enlarged, but in a healthy condition, and a large, flattened, fibrous tumour is easily detected lying across the abdomen.

Those who have passed some time at the Salpêtrière know that frequently the fibrous bodies of the womb are found covered with cretaceous deposits, or that these bodies are replaced by calcareous concretions, which can be enucleated from the walls of the womb. I have seen a marked diminution of the tumour twice coincide with the internal and external exhibition of iodine, Davenport's syrup of iodide of iron and iodide of potassium in drachm doses being given twice a day. The iodide of potassium ointment was used externally.

CALCAREOUS UTERINE TUMOURS.—The outward surface of the womb may become covered with a calcareous shell. In 9 out of the 18 cases collected by the elder Louis, cessation had taken place, and the age of the others was not mentioned. The 14th case in Louis' *Mémoires* relates to a woman who was subject to violent hysterical fits at 40, and their subsidence coincided with the formation of a hard tumour behind the pubis, which gave rise to no untoward symptoms. After cessation, she was troubled, for 20 years, with hæmorrhoids, which sometimes bled, and she died at last of consumption. Under the uterine peritonæum was found a calcareous sac, containing an inodorous, caseous looking fluid; its shell was four lines thick, and so hard that a hammer was required to break it. This case reminds me of one related by Dr. Jallon, *Thèse* 459, An XIII. A woman aged 52, two months after cessation, had difficulty in passing water and a swelling of the womb. Anasarca, atrophy, and death ensued. The womb was found distended, its walls as thin as paper, and

containing a yellow curd-like fluid, said to be disorganized blood.

CANCER OF THE WOMB.—The cancerous diathesis is certainly most frequently observed at the c. of life, for it is shown by the Registrar-General's Report, that previous to 30 years of age cancer is uncommon, both sexes being then equally liable to it; that between 30 and 90 cancer is very common, and that the relative number of deaths from it in women and men is,—

From 30 to 40 as 19 to 6

„ 40 „ 50 „ 51 „ 6

„ 50 „ 60 „ 5 „ 1

Out of 1200 cases abstracted by Dr. Walshe from the Registrar-General's office, 321 referred to males, 879 to females, and 50 only out of the 1200 occurred before 30 years of age. Leroy d'Etiolles found, that out of 2781 cases of cancer, collected from French authors, the disease occurred 1227 times in persons above 40 years of age, and 1061 times in those who had passed 60. The womb was affected with cancer in 30 per cent. of these cases, and the breast in 24 per cent.

The statistics of Bayle, Boivin, and Lever, confirm the general belief that cancer of the womb is most frequent between 40 and 50; and Dr. West has lately shown that out of 426 cases recently collected by Lebert, Kiwisch, Scanzoni, Chiari, and himself, 178 occurred from 40 to 50, and 122 from 30 to 40. The same fact results from the following table, published by Tanchou, *Gaz. des Hop.*, 1838.

TABLE XXIII.

Age of 2568 Women dying from Disease of the Sexual Organs in the Department de la Seine, from 1830 to 1835.

Age.	Disease of Sexual Organ.	Cancer.	Remarks.
Before 20	25		
From 20 to 30	442	86	{ Maximum of inflammatory affections.
„ 30 „ 40	279	212	
„ 40 „ 50	137	402	{ Maximum of cancer.
„ 50 „ 60	70	363	
„ 60 „ 70	60	242	
„ 70 „ 80	42	147	
„ 80 „ 90	13	58	

The influence of cessation in producing cancer of the womb is to me evident. Sometimes it coincides with the first manifestation of uterine cancer, as in 6 out of Lebert's 18 cases, and in 17 out of 37 of my own. Cessation often gives great activity to latent cancer of the womb, though it may occur in subsequent years. It may be caused by the constitutional change determined by cessation, or by the sudden check of an habitual flow. Duparque and Saucerotte, while admitting its frequency at the c. of life, believe it to have originated long before; but if the average duration of uterine cancer be about 16 months, as stated by Lebert and Dr. West, and if, as I have shown, the average duration of the dodging-time is three years, then the coincidence between the c. of life and the development of cancer becomes obvious. Sir C. M. Clarke considers the corroding ulcer of the womb peculiar to the c. of life. With regard to treatment, I shall merely state, that it may be better to give a patient the hallucinations of belladonna, than to leave her a prey to agonizing pains. When the womb, rectum, and bladder, are united into a foul cloaca, cold water irrigations promote cleanliness, assuage pain, and sometimes induce sleep. In only 10 out of 68 cases collected by Dr.

Geil of Erlangen, was the internal surface of the womb found tuberculous in women from 40 to 50; whereas, 22 cases occurred from 20 to 30.

UTERINE HYDATIDS rarely occur from 40 to 50; but Dr. Ashley thinks the complaint more dangerous at the c. of life.

FATTY DEGENERATION OF THE WOMB.—Two cases have been lately recorded by German writers as having occurred at 50 and 53 years of age.

OVARIAN TUMOURS.—Like uterine polypi and fibrous tumours, ovarian cysts frequently originate in the period of full sexual activity. Thus, Lebert found that out of 59 chronic ovarian tumours,

15	occurred from 20 to 30 years,
12	" 30 " 40 "
13	" 40 " 50 "

From the 5th Report of the Registrar-General, it appears that out of 100,000 deaths from all causes, there were 1205 from ovarian dropsy, of which 362 occurred from 40 to 50, and out of 44 deaths occurring in London from this disease in 1848, 17 were between 40 and 50; thus confirming the received notion that ovarian tumours are most fatal at the c. of life, even if they have originated previously. The cure of those eccentric products is as difficult as that of uterine fibrous tumours; their march is often more rapid and more speedily followed by a fatal termination: but, as far as the m. flow is concerned, ovarian are far less detrimental than fibrous tumours; for ovarian tumours, when developed many years before the average date of cessation, oftener diminish than augment the m. flow; which, in other cases, proceeds uninterruptedly, and is sometimes altogether absent. It seems to me that the date of last menstruation is rather brought on earlier than retarded by the growth of ovarian tumours, as I have stated in the chapter on the physiology of the c. of life; at all events, they give rise to no flooding.

The cases of galloping ovarian tumours generally take place between 20 and 40 ; and when an ovarian tumour has remained quiescent for some time before the c. of life, this will either give it increased activity, or cause it to remain stationary for many years. There are many instances on record of women having lived to an advanced age without their comforts being much interfered with by this infirmity ; so that the influence of the c. of life on ovarian tumours is rather favourable than otherwise. In various medical journals, I have systematically treated the pathology of these chronic ovarian tumours ; and it would be swerving from my plan to enter now more fully into the subject. I will, however, add, that I have lately, in several cases, very considerably diminished the volume of the tumour, without impairing the general health, by giving the syrup of iodide of iron and iodide of potassium.

VESICAL AFFECTIONS.—The 49 cases in which women were, for a few months, habitually subject to an increased amount of the saline constituents of the urine, are rather to be considered as a critical evacuation of the blood than as proofs of diseased action, and the same applies to *Hæmaturia*—a rare disease—which has been observed by Chouffe, Meuville, Dusourd, and myself. My cases yielded to bleeding and mild treatment.

The 8 cases of pain in, and difficulty of, passing water, and those of incontinence of urine, soon yielded to diluents, baths, and mild measures. I have met with 2 cases of erectile tumour of the meatus urinarius, a disease first described by Sir C. M. Clarke, and by him thought to occur most frequently in the earlier part of woman's life ; but I am confirmed in the contrary opinion by Mr. B. Norman, who has observed 15 cases, 11 of which were in women during or after the c. of life. My cases did well after the repeated application of strong nitric acid. The immunity from diseases of the bladder and urethra which so frequently afflict men from 40

to 50, compensates beautifully for the many complaints to which women are specially liable.

MAMMARY IRRITATION AND SWELLING.—This is only noted in 14 out of my 500 cases, though I believe it to be much more frequent. The breasts are swollen and painful, the nipples sore, and sometimes distil a milky or a glutinous fluid. Friction, pressure, or moving the arm, increases the sufferings, which may be appeased by constitutional treatment, by camphorated liniment, and by wearing cotton-wool next the skin. Spontaneous ecchymosis sometimes marks the breasts at this period, and Dr. Semple has published a case in which a bloody discharge from the nipples continued, every month, for 5 years after cessation.

NON-MALIGNANT MAMMARY TUMOURS.—Velpeau attributes these to diseased menstruation at puberty and at the c. of life, or at pregnancy, and diseases of the womb; and says truly that, after cessation, they cease to increase and often diminish, so their extirpation should not be too soon determined upon. Gardanne relates 2 cases in which the mammary tumour appeared at cessation, and was cured by leeches. My 2 cases yielded in a few weeks to leeches and applications of iodide of lead ointment. Galen observed, that cancer of the breast was frequent at the c. of life, and Mr. Paget has lately shown that it occurs most frequently from 45 to 50 years of age.

CHAPTER VII.

DISEASES OF THE GASTRO-INTESTINAL ORGANS.

TABLE XXIV.

*Liability to Diseases of the Gastro-intestinal Organs in
500 Women.*

Monthly toothache and swollen gums	1
„ Water-brash	5
Hæmatemesis	4
Repeated vomiting of mucus	31
Jaundice	6
Long-continued biliousness, induced or increased	55
Dyspepsia	37
Monthly dyspepsia	1
Obstinate constipation	23
Frequent diarrhœa	45
Monthly diarrhœa	5
Entorrhagia	20
Monthly blood in motions for 6 months	2
Pus in motions	3
Inflammation of the rectum	3
Piles	62
Bleeding piles	24
Piles bleeding every month	1
Swelled abdomen	26

354

Thus 354 out of 500 women suffered more or less at the c.
of life, from some affection of the gastro-intestinal organs.
The practical bearing of this table is, the great liability to

biliousness, dyspepsia, diarrhoea, and piles. Later in life, the liability to jaundice, biliousness, and dyspepsia runs off, and appetite and digestion improve, unless there be cancer of the stomach; there is also less tendency to lose blood by the bowels; piles cease to bleed, and generally subside in advanced life.

BILIARY AND DYSPEPTIC AFFECTIONS.—The liability to derangements of the biliary apparatus at this period has been noted by Burns, Gendrin, Meissner, Otterburg, and Dr. West. Hepatitis and jaundice have been observed by Gardanne, and Sir H. Halford mentions having seen abscess of the liver at cessation.

The late Dr. B. Lane's observations on the coincidence of the derangement of the biliary secretions at the c. of life, are true to nature:—"Nothing can be more common than to find severe biliary derangement occurring at or about the period of menstrual cessation; and, looking at the great physiological change which then takes place in connexion with hepatic development, it is naturally to be expected. A woman will complain of being bilious—there may be a bitter, oily taste in the mouth, a burning in the throat, frontal headache, nausea, and even vomiting, the urine high-coloured, the bile abounding in the alvine dejections, and perhaps causing heat and a stinging sensation in the rectum, the tongue furred, a biliary tinge pervading the cutaneous surface."

I may also remark that many of the worst cases for which I am consulted have been ascribed to a torpid condition of the liver by other medical men; and though the preceding table shows more clearly than had hitherto been accomplished, how liable women are to sickness, dyspepsia, and biliousness at this epoch, it cannot give an idea of the obstinacy of the biliary symptoms in many of these cases. Thus, P. K., a strongly-built woman, of a sanguine temperament, in whom the m. flow had been irregular for the last 8 months; till then she had enjoyed good health, but since, in spite of purgatives, alteratives, and tonics, I have not been able to set right the gastro-

intestinal functions, or to improve the appearance of the tongue, which is permanently coated with a yellow fur.

CASE 18.—*Jaundice caused by cessation.*—Mrs. W., a tall, stout lady, with dark hair, 49 years of age, and the mother of 13 children, consulted me in June, 1854. The m. flow appeared at 12, and continued regular until it ceased suddenly at 47. Six weeks afterwards the skin became yellow, and she suffered considerably in the region of the liver. She was soon cured, but every 3 or 4 months there was a return of jaundice. This lady is habitually low spirited, and so drowsy that she can neither read nor do fancy work during the day, and yet is restless at night. She has often flushes and chills, but no perspirations. After diminishing the size of the engorged liver, and curing the actual attack of jaundice by blue pill and alkalies, the question was, how to prevent that congestion of the liver which had returned with a certain kind of periodicity, since the sudden cessation of menstruation. I sought to relieve all morbid irritation of the liver by giving blue pill and alkalies for a week every month, and to establish a free determination of blood to the skin, so that it might diminish the congestion of the internal organs, I ordered warm baths, prolonged for two hours every other day, and daily scruple doses of the comp. sulphur powder. To facilitate these therapeutical effects, I advised 2 oz. of blood to be taken from the arm every 2nd, 3rd, or 4th month, as might be otherwise indicated. Gentle perspirations soon showed that the blood currents were steadily set in a right direction, the health became good, and for the last 2 years there had been no return of jaundice. The same plan of treatment succeeded equally well in the following case.

CASE 19.—*Repeated jaundice at cessation.*—Mrs. H., a robust lady, with a bilious look, consulted me in June, 1854, being then 55. The m. flow came at 15, and continued regular until she was 48, when it ceased suddenly. She was then

troubled with piles, which bled freely every 6 or 8 weeks. This went on for 6 months. When the piles ceased bleeding, her skin became yellow, and the liver was found extending several inches below the edge of the false ribs. She has had several slight fits of jaundice, and her motions are often black, offensive, and "burn" the passage. It should be observed that both this and the patient in the previous case, had never been particularly bilious before cessation. The cause of long-continued biliousness at the c. of life, is the congestion of the portal system, no longer relieved by the m. flow. Thus I have seen jaundice occur in young women from the sudden suppression of the m. flow, and have sometimes noticed a persistent loss of appetite for months, notwithstanding the administration of alteratives and tonics. Barras gives a case of obstinate anorexia and emaciation beginning at the c. of life, and followed by the death of the patient after 3 years of suffering. One of my patients had no other symptom than water-brash, which appeared at cessation, and recurred every month for 8 months. Hufeland and Menville speak of the liability of women to hæmatemesis, which occurred in 4 of my cases.

TREATMENT.—The frequency and tenacity of biliary and dyspeptic affections at this period, explain why purgatives have been considered the principal medicines required; but an occasional purgative will have little effect, a systematic plan of treatment must be resorted to, and calomel or blue pill associated with the comp. ext. of coloc., or with the soap and aloes pill, is well borne and often required. I have derived but little benefit from tonics given alone; but the patient will do well to take for one week in every month the inf. of cascarrilla, adding 3 drachms of diluted sulphuric acid to 6 ounces of the infusion. A table-spoonful or two should be taken a quarter of an hour before meals, and immediately after them 15 drops of liq. potassæ, in a wine-glass of water. Two or three effervescing draughts, with citric acid and carb. of soda or potash, should be taken during the day. They may be

flavoured with syrup of ginger, or syrup of orange peel, or 10 to 15 drops of chloric ether. Porter and beer should be avoided. Prolonged tepid baths are useful, and an occasional small bleeding may favour the action of the remedies. I have seen cases which resisted all treatment cured by mineral waters, and such patients I send to Vichy, or to some of the German Spas, where they find sparkling alkaline water to drink or to bathe in; the action of the medicine being admirably assisted by the early hours, the plain diet, and the complete change of all the associations of life. The waters of Aix en Savoie, when combined with mercurials, have also produced good results.

VOMITING.—This is not uncommon during the c. of life, sometimes accompanying the m. flow, and replacing it at others. This symptom generally yields to morphine, a 12th or a 6th of a grain of the acetate being given in an effervescing draught, and repeated until sleep be induced. A patient, who for years had suffered from vomiting at the m. periods, is always relieved by less than half a grain of the acetate, while 2 grains, taken in the 24 hours, will not always quell the vomiting of another patient. The usual modes of treatment failing, rather than let the patient die, it would be better to imitate Moscati, who applied the actual cautery to the pit of the stomach. For several hours there was no vomiting, and the patient was finally cured by the subsequent suppuration.

DIARRHŒA.—This has been noted as occurring in an habitual manner at this period by Gendrin, B. de Boismont, and Chambon. It may constitute the only symptom of cessation, and must always be considered a critical discharge, the suppression of which by active remedies Portal saw bring on anasarca. The advantages and disadvantages of diarrhœa at the c. of life are shown in the following cases:—

CASE 20.—*Chronic diarrhœa caused by cessation.*—Dr. Francis Smith, of Richmond, introduced to me a tall, stout, and

florid lady, aged 57. An eminently hæmorrhagic diathesis was indicated by the abundance of the m. flow, the liability to dysentery, and by her numerous confinements being always accompanied by a flooding. When 50, the lady met with severe family misfortunes, flooding ensued, the m. flow ceased to be regular, occurring, even now, as a mere show after nervous excitement. Soon after 50, she suffered from erysipelas in the head; and as a result of this, of cessation, and of the mental shock alluded to, the lady long remained in a very nervous state. For the last few years this patient has had 3 or 4 motions daily, without any debilitating effects, the appetite and digestion continued excellent, and the increased mucous flow from the intestines sufficiently relieved the constitution, as the health remained good, notwithstanding the absence, until lately, of nightly perspirations.

CASE 21.—*Diarrhœa aggravated by cessation.*—Sarah C., a thin, nervous, chlorotic looking single woman, of 47, came to the Farringdon Dispensary, Sept. 1855. The m. flow appeared at 14, and continued regular until 6 months back, when it became very irregular. Flushes, perspirations, nervousness, and irritability were then troublesome, and twice during this period she has had to leave her place on account of diarrhœa. She states that, ever since the m. flow first appeared, she has always had from 3 to 6 motions a day, but was always most troubled at the m. periods. Until lately, however, this state of the bowels never interfered with her health nor appetite, but now 6 motions occurring daily, completely incapacitated her for work. I moderated the diarrhœa by blue pill and chalk mixture, and then prescribed my usual remedies with success.

Dr. Cockerton, of Montgomery, has lately consulted me respecting a lady, aged 53, who, during the dodging time, suffered from dysentery, then flooding, and, on its subsidence, from great relaxation of the bowels, with racking pains in the lower part of the abdomen, which occurred regularly every

morning, and were evidently connected with uterine disease. Chambon also has seen the constitution thoroughly shattered by diarrhoea at the c. of life. I have met with women who, in advanced age, had several semi-fluid motions in the course of the day, without suffering in the least. Dr. Day has met with similar cases, though the bowels generally become confined.

TREATMENT.—I seek to restrain the diarrhoea by diet and abstinence, but if that be insufficient, I use chalk mixture, and after that, small doses of Dover's powder with blue pill made up into pills. Extra clothing and exercise, a warm bath, and small bleedings, if the patient be plethoric, may be useful. The following cases will show the plan to be adopted in cases of entorrhagia :—

CASE 22.—*Periodical entorrhagia caused by cessation.*—Miss M., thin, nervous, and chlorotic, consulted me in 1853, being then 48. The m. flow appeared at 15, and continued regular until about 3 years ago. For a year the flow was sometimes more, at others less, and it suddenly ceased 2 years ago, after a succession of frights, which thoroughly shook her nervous system. Her health, good until cessation, has been bad ever since. She is often troubled with cough, leucorrhœa, and loss of power in the lower limbs. She has become unusually nervous, feels, at times, as if she were going into fits, talks of strange sensations in the head, as “if she had taken something to make her silly.” This nervous state is peculiarly marked every 3 months, when she menstruates by the bowels for about 6 days. Several times a day she feels great pain at the lower part of the abdomen, there is then anal tenesmus, and she passes a small quantity of blood and mucus. This has occurred for the last 2 years, and during all this time there have been no flushes nor perspirations. In this case, the conservative powers of the system actually did for 2 years what I have so often recommended. I gave her the comp. camph. mixture before, the carbonate of soda after meals, 3 grs. of blue pill, with 2 of ext. of hyosc., on alternate nights, and a warm

bath for an hour every other day. This was continued for about a month with great amendment of the nervous symptoms, and a week before the time for the passing of blood by the bowels, I had 3 oz. of blood taken from the arm. This prevented the hæmorrhage, without ill effects. I then advised the mixture and carb. of soda to be taken as before, and so much of sulphur and borax as would ensure a comfortable action of the bowels the next day. In a few weeks gentle perspirations had become habitual, and afforded great relief. This patient took the syrup of citrate of quinine and iron in 30 drop doses twice a day for 2 months, and became comparatively strong. I had once more 2 oz. of blood taken away before the hæmorrhage was due, and lately, when I saw the patient, she was in good health.

CASE 23.—*Repeated entorrhagia and hæmoptysis caused by cessation.*—Miss G., a tall, delicate looking lady, consulted me in 1852. The m. flow appeared at 16, and it had been no source of trouble until 2 years ago, when it became irregular, sometimes missing for 2 or 3 months, sometimes being scanty, at others so abundant as to amount to a flooding. After shivering and griping pains this patient has sometimes passed considerable quantities of blood and mucus, and once she brought up a large quantity of blood from the lungs. Since cessation took place, the passing of blood from the bowels has not been more frequent, but, notwithstanding continuous flushes and perspirations, she is very nervous, is troubled by sensations at the pit of the stomach, as if some one were sitting there, has choking sensations never before experienced, is very low-spirited, given to crying fits, and though sleeping pretty well at night, could do so all day. What, however, the patient most complains of is, frequent recurrence of pain at the lower part of the abdomen, and for the last few nights the legs, the pudenda, and the seat, are much swollen. This led me to anticipate a recurrence of the entorrhagia, so I ordered a hot linseed poultice to the lower part of the abdomen at

night, and an ounce of castor oil to be taken in the morning, during which day she passed "blood and corruption," and continued to do so with a great deal of griping for 5 days, which has relieved all her abdominal suffering. All her life this patient had never less than 3 motions daily; the m. periods always ending with 5 or 6 motions a day; this being the habit of body, it is easy to understand that for the last year, ever since cessation, the system should seek relief by the intestinal surface. With a view of remedying this state, I ordered the co. camph. mixture before, and the carb. of soda after meals, 3 grs. of blue pill, 2 of ext. of gentian, and 1 of ext. of hyoscyamus, every other night; 10 grs. of Dover's powder every other night; a belladonna plaster to be applied every week to the pit of the stomach, and warm baths to be taken for an hour on alternate days. This treatment was continued with considerable advantage for a month, when the baths and plasters were omitted, and the pills were only taken occasionally. Two months after I first saw the patient I had 2 oz. of blood taken from the arm, and this was repeated 3 months after. I last saw her about a year ago, and she was well; neither the hæmorrhage nor the m. flow had returned.

CONSTIPATION.—This was observed in 23 cases, and yielded to the continued use of mild and varied purgatives. In some cases, the patients suffered severely from colics.

CASE 24.—*Habitual colics and constipation*.—Mrs. T., aged 47. The m. flow came at 15, and left gradually at 45. Ever since cessation, she has been constipated, instead of relaxed, as before; and during the last year she has been troubled every two or three weeks with colic, flatulence, and sometimes vomiting. These symptoms coming on every night with greater severity, I prescribed pills containing one grain of ext. of opium and 3 of c. ext. of colocynth. Two pills nightly were at first required to lull the pain, and then one sufficed. This plan of treatment was very successful, the

bowels being afterwards kept moderately open by the habitual use of sulphur.

HÆMORRHOIDS.—Gardanne has mentioned the case of a lady in whom cessation occurred at 48; and, until 75, when he attended her, she lost monthly a large quantity of blood from piles, and suffered from signs of plethora until the evacuation took place. Stalh has seen similar cases. Menville gives one, in which, for 10 years after cessation, hæmorrhoids occurred monthly. Gendrin and B. de Boismont have likewise noticed continuous or intermittent hæmorrhoidal fluxes at cessation. The table which heads this chapter shows how frequently I have met with piles. The hæmorrhoidal discharges, the diarrhoea, the biliary affections of the c. of life, all arise from one common cause—the unrelieved plethora of the portal system; and when we bear in mind that the organs of reproduction, as well as the intestines, are principally animated by the ganglionic nerves, that the spinal nerves of the womb and the intestines arise from the same part of the spinal cord, that the veins of the uterus communicate mediately with the portal system, and that the last portions of both canals are contiguous, it is not surprising that, when the uterine discharge is arrested, the nervous energy and the sanguineous current which used thereby to find vent, should flow to the intestinal surface.

TREATMENT.—Although critical, the hæmorrhoidal flow is so disagreeable, that it should not be permitted to endure longer than can be helped. In most cases, it can easily be remedied by following my general rules of treatment. The removal of 3 oz. of blood from the arm at successive months is clearly indicated, so is the compound sulphur powder so useful in hæmorrhoidal affections, and rectal sedative injections to allay the local irritation, which continually draws the blood within its morbid circle of attraction.

INFLAMMATION OF THE RECTUM.—Without being subject to piles, women sometimes feel great heat, weight, and

tenesmus in the rectum. It will sometimes cause a difficulty of passing water, and a sensation as if a foreign body were in the vagina. With repose and cooling lotions, these symptoms generally abate; though intractable cases will sometimes occur like the following, which is a remarkable instance of severe suffering caused by the c. of life.

CASE 25.—*Inflammation of the rectum caused by the c. of life.*—Charlotte O., the wife of a plumber, in good circumstances, is a short, average-sized woman, with brown hair, flushed, puffy, and damp face, downcast looks, and seems drowsy, as if she had been drinking. She was 44 when she came to the Farringdon Dispensary, April 23, 1851. The m. flow appeared at 18, after pains flying about her; and soon after its appearance, she suddenly felt something shoot through the ears, and her neck became stiff. She has never since been able to turn her head freely; and when she tries to do so, she feels something crack. The m. flow came regularly so long as nothing disturbed the even tenor of her life, but a fright would at any time cause it to appear. She married at 23, and 7 months afterwards she flooded, and lost much blood for 2 months; since then, the m. flow often lasted for 3 weeks, and was accompanied by a difficulty of passing water. She has consulted many doctors, but no accurate examination was ever made. She never conceived, and has had no serious illness until lately. Although happily married, since marriage she has become more nervous, more easily excited by the everyday occurrences of life; but she has never had any hysterical attacks. For the last 7 years she has been frequently troubled by uneasy sensations “of fulness and rawness” at the pit of the stomach. The weight of the bed-clothes annoys her. The m. flow has been irregular for the last 8 months, coming every 2 or 3 months, and twice she has been flooded. Since then, she has been more subject to headaches, and to pain at the nape of the neck. Now she is often light-headed, giddy, forgetful; and so drowsy, that she is obliged to lie

down, but only dozes a little. She has no hysterical symptoms, but is more sensitive to all stimuli, starts at the least noise, sometimes gets out of bed to stop the ticking of the clock, and cannot bear to be spoken to. Her nights are bad; and of late, 3 or 4 times a-week, she is awake suddenly as if by the ringing of a bell in her ears, then she faints off, and it often takes her husband half-an-hour to bring her to her senses. Since the m. flow stopped a year ago, the epigastric sensations, the flushes, and the sweats were very frequent. Pain arose on passing water, pain on passing stools, and always more or less leucorrhœa, with bearing-down pains. On examination, I found the bladder free from all undue pressure. The womb had the size, form, and appearance of a healthy virgin womb. I therefore considered this to be a case of intense functional derangement, caused by the cessation of the m. flow; and ordered her to lose 8 oz. of blood, and to follow up the bleeding by the application of 5 leeches to each side of the neck; to take the c. camphor mixture before meals, 3 grs. of blue pill, and 2 of ext. of hyoscy. every night; also 10 grs. of Dover's powder. Warm baths were afterwards ordered, but discontinued, because the patient nearly fainted so soon as the water reached her waist. Pediluvia were frequently given, and the nape of the neck and back part of the head were rubbed with camph. liniment, containing 1 drachm of laudanum to the ounce. The patient improved under this treatment, and in the course of a few weeks she had no more nervous fits at night. The pills were then omitted, the Dover's powder only given every other night; the mixture was continued, and she was told to have 3 oz. of blood taken from her every other month. I lost sight of this patient until August 28th, 1853, when she was again suffering from many of the symptoms previously described. Three months before, a great fright brought on a flooding, which lasted 3 weeks. No m. flow since, but distressing pelvic pains. On examining the womb, I found it healthy, but pressure to the

rectum gave intense pain; and she said, she had passed a membranous substance from the bowels. My injunctions about bathing had not been followed up, and I could not persuade the patient to be bled again. The mixture was ordered, a tea-spoonful of sulphur and borax every night, a scruple of nitre in a little barley-water twice a-day, and a large belladonna plaster to be applied to the pit of the stomach. Sept. 19th.—Tongue furred, very yellow, constipation, bearing-down pains, agonizing sensations, “as of fire, in the back passage.” On making a careful examination, there was no fistula or fissure, the sphincter was hot and swollen, the rectum also felt hot, and the finger gave pain. The mixture was ordered before meals, carbonate of soda afterwards. Blue pill and hyoscyamus every night, to be followed by half-an-ounce of castor-oil in the morning. Three times a-day injections were to be made into the rectum of half linseed-tea and half a strong decoction of poppy-heads; and a little later, with equal quantities of saturnine lotion and decoction of poppy-heads. Various other injections were tried to relieve the distressing symptoms which often returned; but nothing succeeded so well as making a full injection of tepid water, to cleanse the bowels, and then injecting an ounce of the following solution, with 2 oz. of warm milk :—

Lotio plumbi acetatis ℥iv.

Tinct. hyoscyami ℥iv.

Feb. 19th, 1854.—The m. flow had been absent for the previous 18 months, when, 2 months ago, she had a pale red vaginal discharge, which returned the following month. She came to the Dispensary on account of a relapse of the inflammation of the rectum, which I relieved by the measures previously described. In May, 1856, I again saw the patient for a slight relapse; and as she complained of a yellow discharge, I examined, and found the vagina shorter and narrower, and the neck of the womb smaller than on a

previous examination. Pressure on the rectum gave great pain, and indicated the seat of the disease. The patient soon got better ; but during the 5 years I have watched this case, I have seldom met with a more distressing example of suffering caused by the c. of life. The patient is intelligent, in good circumstances, can nurse and lay up when necessary, which is in her favour ; but her prejudices against bleeding and baths increased her sufferings. Now, her health is in every respect better ; and as she is 48, and there has been no m. flow for more than 3 years, I believe her constitution will gradually become stronger.

PERMANENTLY SWELLED ABDOMEN.—This condition, at the c. of life, is generally to be accounted for by an increased deposit of fat in the omentum and in the abdominal walls,—a physiological condition treated of at page 40. Sometimes the swelling is principally caused by distressing flatulent distension of the bowels, without diarrhœa or constipation. I have known this to recur every month for several years after cessation, lasting two or three days, and yielding to carminatives.

CHAPTER VIII.

DISEASES OF THE SKIN AT THE C. OF LIFE.

TABLE XXV.

Liabilities of the Skin to Disease at the c. of Life in 500 Women.

Flushes occurred to	287
Dry flushes	14
Legs and feet burning, and very painful	2
Hands painfully hot	3
Distressing aching under the finger nails	2
Peeling off of the nails	4
Falling off of all the finger nails	1
Perspirations	201
Monthly ditto	2
Cold ditto	13
Sweats	89
Undetermined cutaneous eruptions	18
Nettle-rash	5
Erysipelas	4
Eczema brought on	3
„ increased in	2
Ecchymosis	3
Shingles	1
Herpes circinatus	1
Prurigo	3
Prurigo latens, or itching without apparent lesion	5
Carried forward	663

Brought forward	663
Œdematous, or swelled legs	16
Monthly swelling of legs for 3 days for a year .	1
Œdematous, or puffy face	3
Inflammation of legs, and painful distension of their superficial veins	3
Varicose veins induced	1
„ „ aggravated	1
Boils in seat, and in other parts	3
Abscess in finger	2
„ armpit	2
„ neck	2
„ groin	1
Ulcerated leg	7
<hr/>	
Total	705

Thus, 500 women divided 705 modes of slight or severe cutaneous suffering at this epoch. The liability to cutaneous disease passes off in after life; and though the tendency to flushes and perspirations may continue, it is no longer a source of annoyance. Prurigo and eczema are, however, often troublesome to women in advanced age.

These affections may be registered under three heads—flushes, sweats, and cutaneous affections. I shall be brief on the last, but as the flushes and sweats of the c. of life have never been sufficiently studied, I shall devote a few lines to their pathological import, referring the reader to p. 56 for further details.

FLUSHES.—This is the popular name, and I adopt it, because it is short and expressive. “Hot blooms,” is another expression, which faithfully indicates what really occurs. Flushes are mentioned by classic authors under the name of *ardor volaticus*, or *fugax*. Romberg correctly calls it one of the cutaneous hyperæsthesia, and notices its greatest frequency at the c. of life. Flushes may be increased to a

painful extent by external heat, over-clothing, hot rooms, hot drinks, and over-feeding, by the checking of diarrhoea or of leucorrhœa. Some feel so faint under their influence, that they must have air, or they would swoon. M. C. could drop down with weakness when the flushes came on. Dry heats are morbid flushes. They torment a patient without the subsequent relief of perspiration. The cheeks are not the only parts susceptible of burning sensations. Two patients complained most of the burning of the legs and feet; cold water applications did not much abate the annoyance, and at night they were compelled to sleep with their feet out of bed. Three others complained bitterly of similar sufferings in their hands. The flushes are sometimes preceded by chilly sensations, and some women tremble with internal cold, and continue, for a long time, habitually cold, notwithstanding the flushing of the face, like S. W., who continued in this state for 7 years; she had slight flushes without perspiration, was very nervous, and often fainted. Others feel so cold that they approach the fire, when a reaction soon coming on, they fly to the window. In such cases, the perspirations will be cold and clammy, denoting debility, and the congestion of some internal organ. When the flushes are thus anomalous, they are often preceded by epigastric uneasiness, or by strange sensations, which have been said to resemble "pulses, like a live animal throbbing in the stomach," or "the fluttering of a bird;" sensations which vanish on the appearance of perspiration.

SWEATS.—Perspiration was carried to a morbid extent in 79 out of 500 women, who often complained of heavy perspirations. They were constantly wiping the sweat off the face, their hair was often wet, they were obliged to change their linen twice a day, and although slightly covered, their bed clothes became soaked. Gardanne, Chambon, and B. de Boismont, notice the occurrence of sweats at this period, but the little importance attached to them is shown by the fact,

that in an elaborate article, with a host of references, on idiopathic sweating, J. Frank merely quotes Tissot's having observed it at the c. of life. It would seem that sweating ought to be more beneficial than perspiration, but as a minute observer, Sanctorius, remarks—"That perspiration which is beneficial, and most clears the body of superfluous matter, is not what goes off with sweat, but that insensible steam or vapour which in winter exhales to about the quantity of fifty ounces in the space of one natural day."—Sec. I., Aph. xxi. "Sweat is always from some violent cause; and as such—as static experiments demonstrate—it hinders the insensible exhalation of the digested perspirable matter."

The intensity of the force which impels the sweat from the skin is shown, not only by the length of time it may last, but by its often resisting all the attempts made by women to diminish or suppress it. They wear less clothing, take cold drinks, place themselves in draughts, but still the impulse is stronger than their efforts, for they seldom succeed. In general, it is some internal focus of active congestion which checks perspiration, or renders it cold and clammy. When this occurs, great debility is felt, with an increase of epigastric pain in some, in others, a kind of stupor; which, as Dusourd remarks, is immediately relieved when the skin perspires. It is very strange that these sweats are sometimes prolonged for months, without weakening women, or preventing their becoming fat, though the fat often seems to be half liquid. Some of the nervous or chlorotic type, have habitually a cold clammy perspiration, like that coming from the blanched skin of those who are in syncope or vomiting; a passive porosity of the skin, determined by its nervous filaments.

TREATMENT.—I have shown the advantages of promoting perspiration to check the serious disturbance of the internal organs, how then should it be restrained so as to inconvenience the patient as little as possible? Blood is the fuel, the inter-

stitial and molecular combustion of which keeps alive the continuous heat of the body. The relative superabundance of blood is often the cause of the superabundant heat, and therefore of the perspirations, as shown by the case related by J. Frank, of a man who became subject to excessive perspirations after the suppression of an hæmorrhoidal discharge. Diminish the mass of blood by taking 2 or 3 ounces from the arm at successive months, and the sweats will also diminish. The irritability of the nervous system may be relieved by the sedative preparations already recommended. Baths are very useful. They should be tepid, and prolonged for an hour at least. Tissot recommends them highly, and their effects may be increased by the addition of from one-half to a pint of camphorated vinegar. The saline matters, which are otherwise removed by perspiration, must be directed to the kidneys, by giving the salines, as already indicated, the acidulated and effervescing drinks, and small doses of nitre and borax. The Germans give Haller's acid elixir, which is a mixture of equal portions of sulphuric acid and spirits of wine; and Romberg speaks in praise of sulphuric acid, slowly dropped in proof spirits, 30 drops of which may be taken 3 times a day, in an aromatic infusion. The acid. sulph. arom. of the Edinburgh and Dublin Pharmacopœias may be given in water, in 30 drop doses; but all this treatment requires time, and will not satisfy a patient whose cheeks burn repeatedly in the course of the day, and who wants something to give immediate relief. Then a lotion of 1 ounce of cherry-laurel water to 5 of elder-flower, may be tried, or water in which camphor has been allowed to float, or vinegar and water, or water containing 1 or 2 ounces of camphorated vinegar to the pint. Some patients have derived great benefit from using, with the powder puff, one of the following powders, which Mr. Taylor, of Baker-street, makes up, and which he calls "Dr. Tilt's Flush Powders, No. 1 and 2 :"—

Flush Powder, No. 1.	Flush Powder, No. 2.
Carmine . . . $\frac{1}{2}$ gr. or less.	Carmine. . . $\frac{1}{2}$ gr. or less.
Nitrate of bis- muth . . . 3i.	Camphor . . . 3ss.
Camphor . . . 3ss.	Oxide of zinc . 3i.
Oil of bitter al- monds . . . gtt. ij.	Otto of roses . gtt. i.
Starch . . . 3ij.	Starch . . . 3ij.

Some describe with energy their sufferings in winter nights, when, bathed in perspiration, they are afraid of turning, lest they should be chilled by the damp cold, and have given me their warmest thanks for suggesting that a long, thin, flannel dress be worn over the night-gown, and that they should lie on a horse-hair, or a spring mattress, instead of on a feather bed. Suppressed perspiration may be recalled by a warm bath, by letting the patient sit, wrapped in a blanket, on a common chair, under which a lighted spirit lamp is placed, and in 10 or 15 minutes the skin will perspire profusely. Gentle, continuous perspirations may be raised by sulphur and sudorifics. See p. 108.

CUTANEOUS AFFECTIONS.—Out of 500 women, 41 had some form of cutaneous disease, but whether the proportion would have been smaller in 500 men, between 40 and 50 years of age, I cannot determine, though I have certainly found eczema very intractable and relapsing, and prurigo very troublesome at this epoch. Dr. Ashwell thinks skin diseases by no means rare at the c. of life. Dusourd and B. de Boismont say that lupus is frequent; and the latter observes that herpetic affections, long forgotten, then come to life again. Gendrin, Gardanne, and myself, have repeatedly seen erysipelas at this period, and a case is cited by Tissot, of erysipelas of the face occurring 15 times during the 2 first years after cessation, less frequently during the 2 next years, and only once during the 5th year. Mr. Erasmus Wilson, on the other hand, informs me, that he does not consider women more liable to cutaneous

diseases at this critical period than at any other, though when such disease does arise, it is peculiarly obstinate. Prurigo and eczema he deems the most frequent. Mr. Harvey, in his valuable practical treatise on diseases of the ear,* says, that he has frequently seen eczematous eruption of the auricle, and behind the ear, begin at the c. of life, last for many years, and resist all treatment, until, at last, it disappeared by a spontaneous effort of nature. This has occurred several times in my own practice. Mr. T. Hunt assures me that, judging from private practice, and his numerous patients at the Western Dispensary for Diseases of the Skin, the c. of life has often been followed by acne rosacea, lichen in the face or elsewhere, prurigo, and especially prurigo pudend. mulieb. He says, that chronic, scaly affections of the skin, such as lepra and psoriasis, which have commenced before this critical period, are unaffected by it, and he has seldom observed cutaneous affections disappear spontaneously at this epoch. In a case where a patient had never before had the slightest rash, the nettle-rash appeared 4 times in the year which elapsed after cessation; I believe it, therefore, to have been caused by this crisis, as in a case of erysipelas seen by Tissot. M. B., aged 50, first menstruated between her 18th and 19th years, with little previous disturbance, and continued regular until 20, when she married. She had 9 children, the last when 44. At 48, she had several floodings, but without much increase of pains in the head. The catamenia ceased at 49; this was followed by no disturbance of health, except by a severe attack of nettle-rash, 3 months after, on the chest and body, which disappeared on the proper medicines being administered; twice, however, it has recurred at irregular periods, and on the 28th of March, 1848, she applied for relief at the Farringdon Dispensary, for a 4th well-marked attack of the

* "The Ear in Health and Disease." By W. Harvey, F.R.C.S. London: Renshaw.

disease on the lower part of the body and the thighs. Alibert observed some cutaneous eruptions appear twice only in life—once before first menstruation, and once at its cessation. I have also twice seen both epochs preceded by an abundant eruption of boils. Gardanne mentions the same occurrence. That form of lupus which attacks the vulva, and was confounded with cancer until the distinction was clearly made by Huguier, in his admirable *Mémoire*, is as frequent at the c. of life as at any other period, but is not observed after 50. Amongst the poor, ulceration of the leg, without being peculiarly intractable, is not an unfrequent complaint at this epoch. Edematous legs I have frequently noticed, and I have had 2 cases of varicose veins occurring then for the first time. Each patient should be treated at this period according to my general plan, modifying it according to the peculiar disease complained of. For the local treatment of prurigo, eczema, and other cutaneous affections of the pudenda, I refer to that of the affections determining nymphomania, p. 143, and again bear witness to the admirable effects I have seen produced, in a short time, by the external and internal exhibition of the hot mineral waters of Aix en Savoie, which, in chronic cutaneous affections, it is often desirable to take in doses sufficient to determine the artificial eruption called *poussée*.

CHAPTER IX.

NEURALGIC AFFECTIONS AT THE C. OF LIFE.

TABLE XXVI.

Liability to Neuralgic Affections at the c. of Life.

Lumbo-dorsal neuralgia	226
Hypogastric pains	205
Monthly hypogastric pains	16
Frequent ovarian pains	5
Habitual dry colics	6
Paraplegia, mild forms of	6
Sciatica	4
Intercostal neuralgia	6
Numbness and loss of sensation in hands and arms	3
Paralysis of arms, hysterical	1
Temporary deafness, induced or aggravated .	10
Permanent deafness	1
Odontalgia	2
Brow ague, brought on	1
„ increased	2
Aphonia, hysterical	3
Total	497

Thus, during the c. of life, 497 neuralgic affections were divided amongst 500 women. In after life, these affections become much less frequent, with the exception of lumbo-dorsal neuralgia, which often persists, in a slight degree, until advanced age, and few escape those neuralgic affections of the

skin which are called rheumatism, or muscular rheumatism, while the senses become more and more obtuse. When the organs of vegetative life are seriously disturbed in their functions or structure, pain is experienced, sometimes in the viscera themselves, but most frequently in some portion of the walls of the cavities in which they are contained. The spinal nerves which are distributed through the viscera, receive the morbid influence, transmit it to that portion of the spinal column whence they originate, and the pain is then reflected through the spinal nerves which proceed to the cavities containing the viscera.

The ovary may transmit pain to the spinal nerves by means of the splanchnic nerves. The upper part of the womb is supplied with spinal nerves from the intercostal branches, through the medium of the splanchnic nerves and ovarian plexus, and any disease seated in that part of the womb may cause the reflected pains to be felt along the intercostal nerves which arise from the same part of the spinal chord as the nerves furnished to the fundus of the uterus. The middle and lower portion of the uterus is furnished with branches of spinal nerves from the lumbar plexus through the medium of the hypogastric, and when this part of the womb is diseased, the pains are transmitted along these nerves and reflected on those which arise from the lumbar plexus, and therefore along the nerves supplying the muscles of the lumbar portion of the back, the walls of the abdomen, inside of the thighs, the front of the leg, and even sometimes to the instep. The spinal nerves distributed to the vaginal portion of the generative intestine arise from the sacral plexus; hence disease of the vagina causes pains to be reflected along the nerves which come from this plexus, and as this plexus furnishes nerves to the sacral region, to the peritonæum, the posterior part of the thighs, the calves of the legs, pains may be experienced in all this course, and, in some rare cases, even in the soles of the feet. It will therefore be seen that it is not possible to

ascribe the dorsal and the hypogastric pains each to a distinct set of nerves.

LUMBO-DORSAL PAINS.—These are fugitive in the upper portions of the spinal cord, and principally settle in its lower extremity, radiating to the small of the back, the loins, thighs, and legs. The pain is generally described as an aching or numbing pain, a gnawing, dragging, burning, or grinding pain; a sensation as if the back were broken, or as if it were opening and shutting—varieties of pain, like those of neuralgia in other parts of the body; their intensity varies from that slight pain, which does not prevent moving about, to that which for a time usurps the place of all other sensations, confining women to their beds for a few days. The frequency of these pains is as follows:—

Lumbo-dorsal pains had existed in . . .	70	per cent.
They were augmented at cessation in . . .	46	„
„ the same	17	„
„ less	7	„
They did not exist in	30	„
	<hr/>	
	100	

A great intensity of pain in the cerebral and spinal regions is seldom met with at the same time, for the two are in general so counterbalanced, that when a great amount of cerebral symptoms exists, the spinal symptoms have not a similar intensity. During the prodroma of menstruation, and during the “dodging time,” the cerebral symptoms are most intense; the spinal symptoms are, in general, more common and annoying during the period of the full activity of the generative function; and at cessation great is the intensity of both modes of suffering.

HYPOGASTRIC PAIN.—This pain is generally referred to the ovarian, and to the uterine regions. It differs from the symptom just described, in being a pressing, forcing, or bear-

ing-down pain. It seems to indicate a tenesmus of the cervix uteri, to have an expulsive character, and to mark the direction of those neural currents which direct the course of blood towards the womb, and procure its expulsion from that organ. Even when the m. flow has ceased, these pains sometimes recur monthly, and seem to determine the leucorrhœal discharge, or the diarrhœa, by which they are often accompanied. Such pains had previously recurred during menstruation in

51 per cent.

They were augmented at cessation in	30	„
„ the same	12	„
„ less	9	„
There were none in	49	„
<hr/>		
100		

I have known women suffer habitually from colics for 8 and 10 years after cessation, the intestines being the seat of pain, which, however, did not interfere with their proper functions. The following was a tedious case in which dorsal and a fixed ovarian pain were the prominent symptoms:—

CASE 26.—*Lumbo-abdominal neuralgia and remittent menstruation caused by cessation.*—Patience K., tall, stout, with broad features, thick masculine eyebrows, dull squinting grey eyes, brown hair, and a sanguine temperament, came to the Paddington Dispensary, January 29th, 1851. She was then 48. The m. flow appeared at 15, and continued regular without disturbance. She was once laid up for a year by some acute affection of the brain before she married at 24. Conception never took place. At 44 she again suffered much from pains in the head, and pain in the right arm, which was benumbed and contracted for some time. This was cured, but P. K. has been ailing ever since, off and on, subject to a throbbing, heavy pain at the top of the head, to nervousness, to tremblings, to loss of memory, to palpitations, to epigastric

pain, sometimes only after taking food, at others without a cause. This has been more troublesome during the past year, and for the last 4 months she regurgitated sour or bitter stuff once a week. She looks vacant, bewildered, and of late has had fainty feelings, and a clammy skin. For the last 2 years there have been frequent pains in the ovarian regions, "as if from the plunging in of a knife," and for the last year intense pains have arisen at the lower part of the back and sacrum; her other sufferings have increased, and have become more frequent. During this time the m. flow has also been irregular, much more abundant, and with scarcely more than 10 or 12 days between the m. periods.

To allay the derangement of the biliary functions was the first indication; the next was to prevent the too frequent recurrence of the m. flow by quinine, adding 6 drachms of tincture of cinchona to the comp. camp. mixture. Two table-spoonsful to be taken 3 times a day. I also prescribed 20 drops of liquor potassæ in a little water, after meals, and at night 4 grs. of blue pill, with 2 of ext. of rhubarb, to be followed by $\frac{1}{2}$ an ounce of castor oil in the morning. An opium plaster to be applied to the pit of the stomach. Feb. 12th.—Ten oz. of blood were taken from the arm. The previous remedies were continued, with the exception of the pills, which were now to be taken only on alternate nights. March 11th.—The m. flow has not appeared for 6 weeks. The food is better digested, but the tongue is still furred, and there is much pain under the left breast and in the left ovarian region. Leucorrhœa is abundant, the os uteri has the usual size, it is painful on pressure, which also increases the habitually felt hypogastric pains. There is no ovarian swelling. Six oz. of blood were taken from the arm. April 21st.—A blister to the left ovarian region only relieved the intense pain for 2 days. Mercurial and ext. of belladonna ointments rubbed in twice a day did no good, so I ordered 20 drops of Battley's solution and 1 drachm of tinct. of hyos-

cyamus mixed in a little warm milk to be injected once a day into the rectum. May 20th.—The sedative injections have given great relief. The m. flow came without much pain after an interval of three weeks. There is still intense pain in the back. On again examining the patient I can find no organic uterine disease. The pains are caused by the cessation of the uterine function in a woman whose nervous system has been shattered for the last 5 years. July 22nd.—The m. flow came after an interval of 10 weeks. The patient is again very bilious, and is ordered the blue pill and previously named remedies; 4 oz. of blood are to be taken from the arm. November 1st.—The biliousness has gone, the sedative injections control the intense pains; the head symptoms are better. The m. flow has again appeared after an interval of 13 weeks. When I lost sight of the patient her condition was much improved by 10 months' treatment, but the dodging time was probably not over, and in all likelihood will still render her a great sufferer.

TREATMENT.—Besides the general principles of treatment, there is a distinct indication to use sedatives until the habitual pains are assuaged, and they may be continued for weeks without ill effects. Soothing liniments may be rubbed in night and morning; I mean camphorated liniment, with the addition of tinc. of opium, belladonna, hyoscyamus, separately or combined, as the case may suggest. Soft opium or belladonna plasters may be applied and renewed every 4 or 5 days. Linseed-meal poultices sprinkled with camphor, mustard poultices, and even blisters, should be tried. The wadding poultice, or the soft side of a sheet of wadding pulled asunder, and applied to the abdomen alone, or previously sprinkled with a few drops of the spirits of ammonia, or soluble camphor, gives great comfort, and sometimes it is good to place the lower part of the pelvis in a kind of permanent vapour bath by surrounding it with oil silk applied next to the skin.

PARAPLEGIA.—Gardanne mentions having seen paraplegia occur after the sudden cessation of the m. flow, but he gives no details. The 6 cases observed by myself were of a mild nature, and all recovered. There were pricking sensations in the feet, numbness of the lower limbs, great pain in the dorsal region, and an inability to walk. Three complained of a difficulty in passing water, and of a loss of sensibility in the skin of the lower limbs. Similar cases have been met with by Dr. G. Bedford and B. de Boismont. In infants, paraplegia generally depends on intestinal irritation; in adults, on vesical or uterine affections; and in old age, it appears as an idiopathic disease. Paraplegia is rare at the c. of life, though more frequent than is supposed. It occurred in 2 out of Dr. R. Leroy d'Etiolles' 12 cases, and on careful inquiry at the Salpêtrière, where there is a great number of paralytics, many of the patients dated their complaints from the c. of life. Most of these sufferers might have been cured in the early stage of the disease, when it depended upon congestion of the spinal marrow; but, subsequently, atrophy of its lower portion prevented the possibility of cure. In my cases, there was no organic uterine disease to account for the paraplegia; but in one of Dr. R. Leroy d'Etiolles, there was considerable swelling, and abundant leucorrhœa, and the patient could not walk without several attendants. Iodide of potassium cured the uterine hypertrophy, and the paraplegia disappeared. The following case is related by Ollivier d'Angers; it is interesting to find so distinguished an observer faithfully noting, although without recognising their import, the ganglionic symptoms which play so prominent a part in the case.

CASE 27.—*Frequent attacks of paraplegia, with ganglionic symptoms.*—A lady, aged 49, in whom the m. flow had been very irregular for a year, every now and then, without ascertainable cause, had the following train of symptoms, whether in bed, up, reposing, walking, eating, or fasting. There was constriction in the epigastric region, with or without sensations of

suffocation, which sometimes awoke the patient suddenly. Then came flushing of the face and head, and afterwards burning sensations in the upper part of the spinal column, with pain and numbness in the arms, which became partially paralysed. This lasted for about an hour, when cold perspirations appeared ; she then felt as if cold water were poured down her back, and her lower limbs became paralysed. This temporary paralysis has often occurred so suddenly, that the patient, taken unawares, has fallen down. In about three quarters of an hour, these symptoms disappear, without leaving any trace ; but they may recur from 3 to 5 times in one day, and on several successive days previous to the m. flow, and about 10 days after, during which time constipation is great, and urine more frequently passed, with tenesmus. Leeches repeatedly applied opposite to the painful part of the spinal column, tepid baths and purgatives, greatly diminished the frequency and intensity of the attack, and the m. flow became more regular. A blow to the pit of the stomach determines general paralysis ; and here, the womb, after its fashion, gave a shock to the nervous ganglia at the pit of the stomach, which reacted on the spinal marrow, and caused paralysis of the limbs. In remarking on this case, Ollivier d'Angers insists on the necessity of applying the leeches to the spinal column, asserting that the same effect would not have been produced by applying them to the pudenda ; but the position is disproved by the following case, which occurred in the practice of a medical friend :—

CASE 28.—*Permanent paraplegia.*—A lady's-maid, aged 45, complained of violent pain in the loins, for which a mustard poultice was ordered ; and, as the pain persisted, a blister was subsequently recommended to the lumbar region. This application was soon followed by paraplegia, and a neighbouring practitioner gave, as his opinion, that the application of the plaster had determined the paralysis of the lower limbs. Although this assertion was contradicted by

another medical man, who was called in on account of the persistence of the paraplegia, my friend received several letters from the solicitor of the family, menacing him with an action; but he set them at defiance, and he heard nothing more of this attempt to make a medical attendant pay for an occurrence which it was impossible to foresee. The patient went home to her friends, and a country practitioner, more clear-sighted in this instance than the eminent men of town, putting together the circumstances of the patient's age and the previous irregularity of menstruation, applied leeches to the womb. The result was a gradual diminution of the paraplegia, and she was soon able to walk with perfect ease.

TREATMENT.—In how many cases, where paralysis was supposed to be caused by inflammation of the spinal marrow, have the backs of delicate patients been uselessly tormented by blisters and moxas; whereas, the special treatment should be directed to whatever organ, womb or kidney, may cause the paraplegia. I have seen admirable effects from the use of the hot mineral waters of Aix en Savoie, and great good is sometimes done there by parboiling the powerless limbs, the patient being placed in a bath, in and out of which hot water is continually flowing. Shower baths and douches of hot spring water will be found useful; and shower baths of water, alternately hot and cold. Such appliances, irrespective of sex, are valuable, not only in paraplegia, but in all chronic, local paralytic affections, which seem to depend on some obstructed circulation of the nervous fluid. When the patient cannot leave home, benefit may be derived from stimulating baths, the attendant emptying into the water a bottle containing 6 ounces of liquid ammonia, and 1 of camphorated alcohol, adding from 2 to 4 lbs. of common salt. On leaving this bath, the limbs should be rubbed for 20 minutes with the hand; and camphorated ointment may be used.

SCIATICA.—From 4 cases, I have selected one which forcibly shows the utility of sudorifics in diseases of the c. of life.

CASE 29.—*Sciatica at the c. of life.*—Jane A., aged 40, with dark hair, grey eyes, small stature, nervous constitution, and slender make, was admitted at the Farringdon Dispensary, Feb. 8th, 1851. After having suffered 2 years with violent headache and giddiness, she first menstruated between 15 and 16, and continued regularly to do so very abundantly. She married at 16, became pregnant immediately; had 7 children, the last in her 26th year; was always regular until she quickened, and in 3 pregnancies she menstruated regularly up to the period of parturition. The previous summer, she was treated, at the Royal Free Hospital, for rheumatic fever. Menstruation proceeded regularly during the patient's stay at the hospital, appeared 4 times after her return home, and then stopped—a circumstance which made her believe herself pregnant. She complained of an intolerable pain in the left lower limb; and, on examination, I found that pressure on the spine did not increase or cause the pain. To all appearances, the left limb was as sound as the right; and the pain was said to arise from before the great trochanter, and to gain the back of the limb, following the course of the great sciatic nerve and its subdivisions to the toes. The pulse was weak, the urine clear, and of the usual colour. I ordered a blister to the spot which was the most painful, pills of compound extract of colocynth, and a sedative mixture. The blister did not relieve the excruciating pain. Turpentine embrocations were added, the other measures continued, and the blister repeated, without the least benefit. March 8th.—The patient suggested that her pains might have been caused by the sudden cessation of menstruation 5 months previously. On learning that she had lately had flushes and nightly perspirations, never experienced before, I ordered her to take, as an emetic, 1 scruple of ipecacuanha with 1 gr. of tartar-emetic, to continue the mixture and the pills, and to take a tea-spoonful of flower of sulphur in milk on going to bed at night. 15th.—The heats and perspirations had increased;

the pains had much abated. I ordered another emetic, and continued the other measures. 29th.—The pain is very trifling, and the heats, flushes, and perspirations, are more frequent, coming on, not only on exertion, but in bed, at night, and in the morning. April 6th.—I ordered, sulphur, 2 oz.; bicarbonate of soda, 4 drachms; and 2 scruples of ipecacuanha—a tea-spoonful to be taken in a little milk every night. June 11th.—She has had no return of pain; but in the absence of flushes and perspirations, she suffers either from headache or from the sensation of “something working” to bring on the pain in the leg. It is now more than 10 months since she menstruated. Jane A. has not suffered in any other way from cessation; and as she was subject to a copious discharge every month, one can understand that she should feel the effects of its sudden cessation; and as in her constitution there was a great predominance of the nervous system, it is not surprising that it bore the brunt of the sudden shock, particularly that portion which was predisposed to illness by the previous attack of rheumatism. I saw this patient again in 1855; there had been no sciatica nor return of the m. flow, and her health had improved.

Gardanne mentions, that a woman of a strong constitution, at her 45th year, suddenly ceased to menstruate; and was at the same time seized with violent pains in the left thigh, and at the end of 4 months, was not able to move the limb. As she had suffered from syphilis in her youth, mercurials were given, but without effect. Sabatier and Gardanne then advised moxas to be applied to the leg, which produced slight fever and great perspiration, but restored the use of the patient's limb.

CASE 30.—*Cardialgia and reflex intercostal neuralgia aggravated by the c. of life.*—Mrs. K., aged 42, consulted me, July 5th, 1855. This lady is stout, of an average height, with dark hair and eyes, a swarthy complexion, and has all her life been subject to bilious complaints. The m. flow first

appeared, with frequent fits of fainting, at 12. It continued regular, and was often accompanied by brow-ague. She married at 27, but never conceived. In 1848, after having been a year at Ceylon, she was first taken with excruciating pains in the dorsal region of the spine, and in the abdomen, which pains always came on at night. She improved under a mercurial treatment, had the Bombay fever the following year, but came home recruited by the long sea voyage. Four years after her return, the m. flow became irregular, and now she never passes more than a little green water for one day. Since the m. flow became irregular, she has been always ailing; was once under Mr. Keate for an hysterical affection of the shoulder-joint and paralysis of the arm, and has often had attacks similar to those she had at Ceylon. She stated, that every night she was awake by an acute, "gnawing, hot pain" about the 5th dorsal vertebra. This pain encircled the right side, reached the pit of the stomach, where it centred and kept tearing and gnawing her for about 2 hours. The patient very graphically described the sudden coming of the attack—"as if the thing called pain played a thumping overture upon her." She has learned to relieve these attacks by laudanum. In their absence she is very often troubled with a burning pain at the pit of the stomach; and of late, when the pain was intense, she has often fainted several times a-day. This lady, though stout and healthy-looking, is endowed with a most sensitive nervous system. She feels every change in the weather, and suffers acutely when there is thunder in the air. She is often heavy, stupid, drowsy, and forgetful: very low spirited, thinks she is going out of her mind, and is often tempted to commit suicide. For the last 2 years she has been much troubled with flushes, but without perspirations; and circulation is inactive, for her fingers are cold and blue, even on a warm summer's day. The pulse is small, the tongue slightly furred. July 5th.—I prescribed the comp. camph.

mixture before meals, the carbonate of soda after ; 6 grs. of blue pill, and 2 of ext. of hyoscyamus every other night, 10 grs. of Dover's powder every night, a scruple of the sulphur, a borax powder twice a-day, and warm baths as often as they could be taken. July 18th.—Decided improvement followed the sound sleep which came when the treatment had been followed for a few days ; the paroxysms of neuralgia were no longer periodical, and she had only had two since the 10th. I continued the same treatment, but also ordered 2 belladonna plasters, one to the epigastrium, the other to the painful part of the spine, which were to be renewed every week. Aug. 15th.—The patient being very bilious, I ordered 3 grs. of cal. every other night, and a black draught in the morning ; the mixture, the soda, and the Dover's powders were continued. She was salivated by 2 of the pills. Sept. 19th.—The paroxysms of pain returned again every night ; so I ordered the sixth of a grain of acetate of morphine to be taken in a mixture, every two hours, until sleep was induced. This procured 14 hours of sound sleep, and the attacks only occurred at long intervals. When I last saw the patient, I advised her to take the c. camph. mixt. and the Dover's powder occasionally, and every night to take a drachm of sulphur and magnesia, inducing narcotism with acetate of morphine, whenever an attack of intercostal neuralgia threatened. Her nervous system was too sensitive to admit of permanent health, particularly as the acuteness of its susceptibilities were constantly sharpened by her anxiety for a very nervous husband. The irregular performance of the m. function also fretted the nervous system. One point to be remarked in this case is, that the frequent flushes were dry and burning, being unrelieved by perspiration. Gentle perspirations coincided with the improvement in the symptoms, and their persistence afforded the greatest chance of immunity from worse symptoms. This patient had been fearfully nervous all

her life, without ever having presented any of the forms of hysteria, so varied are the states of nervous suffering, for many of which there is no name.

In four other cases, cessation was followed by intercostal neuralgia; in one, a lady sent to me by Mr. Trotter, of Stockton, remarkable for her portly and healthy appearance, looking as if she could not be nervous, was never hysterical until cessation took place; after which she became habitually irritable, nervous, fearful, with frequent globus hystericus, and intense mammary and intercostal neuralgia.

NEURALGIC AFFECTIONS OF THE EYES.—In two women, at the c. of life, I have noticed the head symptoms to be accompanied by marked photophobia, and many patients complained of an unusual dimness of sight, which wore off on the abeyance of pseudo-narcotism, and other head symptoms. H. D., aged 50, and chlorotic-looking, has been irregular for the last 6 months, and suffers much from intense debility, even after a full meal. She can scarcely keep herself awake during the day, and at night is kept awake by a dull, heavy pain in the eyes, lasting more than two hours, the probable cause of which being that she has lately worked too hard at embroidery. B. de Boismont gives the case of a woman who, at 45, was blind for 3 days; Boyer rightly judged that it depended on the c. of life, and on recovering her sight, she remained subject to giddiness. Dusourd met with 3 women who were blind for 2 or 3 days at the c. of life, and he has several times observed them affected with hemeralopia; and Romberg erroneously considers women predisposed to amaurosis at the c. of life.

DEAFNESS.—When deafness occurs at the c. of life it should not be considered senile, for it may depend upon inflammatory affections of the external canal, or upon the eczematous thickening of the tympanum, as in a lady recommended by me to Mr. Harvey, of Soho-square, who rapidly and effectually cured her of an infirmity which had lasted more than a year

Deafness at this epoch is, in general, purely nervous, attending on pseudo-narcotism; the patients being, as it were, stunned, do not hear until they are fully roused from their state of torpor. I have seen this deafness appear and disappear suddenly; in one case it came on suddenly at cessation, when flooding abated about 6 years ago, but the deafness continued ever since; and I have known women driven to desperation by continued noises in the ear, which sometimes baffle all treatment. M. S., a dispensary patient, aged 52, never had a day's illness until 45, when she saw a man executed. Flooding then came on, the m. flow never reappeared, but loud and continued noises were constantly heard, which Mr. Harvey did not attribute to a diseased condition of the internal ear. They resisted cupping, blisters to the nape of the neck, and other treatment. In a very nervous lady, sent to me by Mr. Harvey, erysipelas of the face occurred at the c. of life, and left an excruciating pain, sometimes accompanied by a most annoying "forcing sensation" behind the ears. This had lasted for three years, but it yielded to my general treatment, and to the local measures necessary to cure uterine irritation.

NERVOUS APHONIA.—This is a rare affection, but I have had a good opportunity for studying a case occurring in my own connexion.

CASE 31.—*Frequently-recurring aphonia*.—A lady, at the c. of life, after losing her husband, came to town, and settled in Belgravia. Though she had not hitherto been subject to nervous affections, cold, over exertion, worry, or sometimes no apparent cause, would suddenly deprive her of her voice for a few days. The nervous nature of the ailment was shown by the sudden coming and leaving of the aphonia, and by the effect of change of air; for a drive in the Regent's-park or to Hampstead would often restore her voice to its natural tone. She therefore left town to reside in the country, and has since enjoyed a comparative immunity from

this complaint. Sometimes a potion, containing ether, speedily dispelled the aphonia.

Dr. Delieux has found chloroform useful, giving from 10 to 15 drops in a little water, so chloric-ether would probably give great relief. In two cases, I found sudorifics useful, the permanent return of the voice coinciding with a marked determination to the skin. Cerise speaks in favour of emetics for nervous aphonia, and I have witnessed their sudden good effects.

RHEUMATIC PAINS.—This affection, improperly called muscular rheumatism, is a neuralgia of the nervous filaments of the skin. In many, cold may induce, and heat as speedily cure it; but at the c. of life, the damp state in which the underclothing is kept by continued perspirations explains the frequency of this occurrence.

TREATMENT.—Heat under any form is good. Ironing with a hot iron, or the more scientific applications spoken of at p. 112, will cure the patient. Vapour baths are serviceable. Sponging, with alternately hot and cold water, or shower baths of the same, will harden the surface against rheumatic influences. The thermal waters of Aix en Savoie, used in a similar way, are very effectual. In advanced age, these rheumatic cutaneous pains are often exceedingly troublesome, but women are then generally free from the eccentric nervous pains and temporary paralysis which have afflicted them in youth, and have been described, by Sir B. Brodie, as hysterical.

CHAPTER X.

DISEASES OF THE GANGLIONIC NERVOUS SYSTEM.

TABLE XXVII.

*Liability to Diseases of the Ganglionic Nervous System in
500 Women at the c. of Life.*

Epigastric faintness and sinking	220
Epigastric pain or anomalous sensations	49
Fainting or leipothymia	25
Fainting off for the first time in life	3
Prolonged and intense debility	41
Monthly depression of strength	1
Chloro-spanæmia	40
Palpitations	16
Aortic pulsation	2
Hysterical asthma	7
Monthly hysterical asthma	2
	—
	406

Thus 406 women out of 500 suffered more or less from diseases of the ganglionic system. The liability to these affections decreases in advanced life ; epigastric pain is then seldom intense, but there frequently remains a liability to fainting, and to the sinking sensation at the pit of the stomach. On the whole there is a great increase of constitutional stamina until advanced age, when progressive debility and gradual decay occur from the exhaustion of innate power. The ganglionic nervous system, in a pathological point of view, is generally looked upon as a *terra incog-*

nita; and the subject is overlooked or very incompletely considered in systematic works on pathology, and it is scarcely better treated in books on nervous diseases. Thus, notwithstanding Lobstein's classic work, Georget, writing in 1836, affirmed, that nothing is known about the diseases of the solar plexus, or the ganglionic system of nerves, and, in describing gastralgia, he jumbles together the symptoms of pyrosis and dyspepsia with those arising from disease of the epigastric nervous centres. Sir H. Holland says, "that the ganglionic system, and the various nerves of organic life, are still only partially known to us in their proper actions, and yet more obscurely in their intricate connexions with the *nervous powers of animal life*;" and if this eminent pathologist is to be believed, "a less definite influence of the system of organic life, as one of the causes of exhaustion," is the only morbid liability of this all-pervading nervous system. It is not surprising, however, that the pathology of the ganglionic system should have been hitherto imperfectly considered, since its physiology is full of desiderata, and even its anatomy is still a subject of endless contention. The experiments lately performed by my friend, Claude Bernard, promise to lead to a more correct pathology of this system; and in some interesting papers on malaria, recently published by Dr. Handfield Jones in the *Association Medical Journal*, he has shown that the experiments alluded to, and repeated by him, establish that the partial paralysis of the ganglionic nerves leads to the congestion or to the inflammation of the tissues within the area of their distribution, and that the partial paralysis of the whole ganglionic system is an important element of fever, whatever type it may assume. Having thus indicated the extent of which the inquiry is susceptible, I now proceed to sketch the *neuralgic* affections of the ganglionic nervous system.

On taking a comprehensive review of the various stages of the reproductive process in women, I am struck with the

frequent prostration of strength being a predominant symptom even when women are in health. At every recurring m. period, at the cessation of menstruation, after connexion, parturition, and during lactation, there is felt, more or less, a loss of energy ;—so it seems as if woman could not pass through any of the stages of that function which serves to communicate life, without the momentary loss of some portion of her own vital energy, reminding one of those animals who die when once they have transmitted life to others.

Et quasi cursores vitæ lampada tradunt.

A glance at the preceding table will show that debility of variable intensity is the constant character of the complaints which I attribute to the diseased action of the ganglionic system. I shall briefly notice, I. Debility; II. Syncope and Leipothymia; devoting more space to III. Cardialgia, and IV. Chlorosis.

I. DEBILITY.—This condition underlies all other ganglionic affections, in the same way as nervous irritability underlies all cerebral diseases. Debility existed in a marked degree in all the cases enumerated above, although it was only marked intense and prolonged in 41 instances, where it did not seem to depend upon any other cause than the c. of life. Sometimes there was an overpowering sense of exhaustion equally pervading the whole system; thus 41 women, of previously active habits, deplored being rendered helpless by intense and long-continued debility. A. M., a hard-working woman, says, “she hardly knows how to dress herself, and is often obliged to lie down to recover herself.” M. W., a thin, delicate, red-haired woman, aged 45, two years ago got her feet wet at a m. period; the flow stopped; there were great abdominal pains, and a state of intense and long-continued prostration, without any other cause than the c. of life. In others, the debility is so rooted in the system, that a full meal or stimulants will not dispel it. There is only a diffe-

rence of degree, none of nature, between this thorough exhaustion of radical strength, and its slight manifestations, so frequent at this period, which seem to originate from the pit of the stomach. This epigastric faintness occurred in 220 out of 500 cases, and is one of the most frequent of the minor torments to which women are subject. Pathologists have noted the severe cases of disease of the ganglionic centre, but they have failed to see the connexion between these and its milder forms, which occur habitually; whereas, between the severest of my 49 severe, and the slightest of my 220 mild cases, I only see a difference of degree, none in the nature of the complaint, which is as variable as the ever-varying shades of the same colour. The symptoms are described as "a sinking and faintness," "faint heats," "or a dull, sickly feeling at the pit of the stomach;" and the sensations are compared to those of "hunger, or to the craving of the dram-drinker after his wonted stimulus." Others feel "as if they could faint," as "if they wanted support," as "if they had no inside," as "if there was a vacuum." They will not allow the sensation to be called pain, but speak of its being so irritating and irksome that it is worse to bear than pain. They will frequently say that "all the complaint lies in the chest," but they point to the pit of the stomach, and have not a single symptom of chest disease. These sensations may be the harbingers of others that obscure them, such as heats, perspirations, diarrhoea, bloody stools, and globus hystericus. When debility is intense it passes by a gradual sliding scale into the state called leipothymia by the older writers, and may end in the total extinction of vital power.

II. SYNCOPE AND LEIPOTHYMIA.—Fainting is generally considered synonymous with syncope, whereas *syncope* is the failure of the heart's action, *fainting* is the great loss of ganglionic power, determining loss of consciousness; while *faintness* is the temporary depression of ganglionic power, consciousness being unimpaired. It is true that fainting and

syncope often coincide, and produce each other ; though in some of my severest cases of cardialgia, I have seen fainting occur, consciousness lost, and respiration imperfectly performed, while the heart's action was undisturbed. Dr. Copeland has already noticed this fact, and states, that in similar cases, he has even sometimes found the pulse to indicate bleeding. By *fainting*, I understand the "deliquium animi," or the "defectio animi," of Celsus, the leipothymia of Sauvages, whose definition is true to nature—"Subitanea et brevis virium dejectio, superstite pulsus vigore, et cognoscendi facultate." Syncope is rare at the c. of life, whereas a frequent liability to fainting occurred in 25 out of 500 women. M. S., aged 47, frequently fainted from slight exertion at this epoch, but never swooned before cessation. S. A., a strong-looking woman, aged 40, 6 months after cessation, was obliged, for the first time in her life, to give up work, because exertion brought on fainting, and irksome sensations of a load at the pit of the stomach. She has several times fainted off for three quarters of an hour. She is relieved by passing wind, is not dyspeptic, but nervous, and has globus hystericus. M. G. never fainted in her life until the dodging-time, and then fainting fits occurred 2 or 3 times a week for 3 years. A. L. frequently fainted before first and last menstruation, and during each m. epoch. C. S. had repeated fainting fits in the year following cessation. B. de Boismont has noticed fainting at the c. of life, but he has not connected the comparatively rare cases of fainting with faintness, and the debility so often complained of ; but I consider fainting to be linked, by insensible gradations, to the slightest sensation of epigastric faintness. The preceding considerations may throw light on some cases of sudden death, insufficiently explained by *post-mortem* examinations. Those who have written on ague have noted the paralysing influence of paludal miasma over nervous power. Sir G. Blane relates how the Walcheren patients, when in full convalescence,

would unaccountably drop down dead; and in the hospital of San Spirito, at Rome, I have seen a man, recovering from pernicious fever, expire suddenly, without any *post-mortem* appearances being found to explain the cause of death. Cases of sudden death in puerperal women, already in full convalescence, seem to me susceptible of being accounted for by the previous observations. A tall, thin, pale-faced, flaxen-haired, inanimate lady was confined, and was doing so well that her accoucheur had ceased his daily visits, when, on sitting up to take her usual food, she fell back, and suddenly expired. Nothing was found to explain this event, but a somewhat flabby state of the walls of the heart.

In advanced age all the ganglionic nervous affections abate, except debility, which goes on gradually increasing until death occurs from the extinction of that amount of power allotted to the ganglionic system. Sometimes, however, death occurs suddenly in the midst of comparative strength, without its being accounted for by the most careful examination of the body, and then I believe it may be caused by some spontaneous shock to the ganglionic centre, similar in effect to a blow to the pit of the stomach; the gastric irritation caused by unmasticated food, possibly had this effect in some cases of syncope senilis, as suggested by Mr. Higginbottom.

III. CARDIALGIA.—The minor forms of this affection are very frequent, and its severest not uncommon; but I intend to illustrate its Protean nature by cases remarkable for their severity or their singularity. Pain at the pit of the stomach was the prominent symptom in the two following cases:—

CASE 32.—*Cardialgia caused by the c. of life.*—Miss C. consulted me in 1855. She was 48, tall, stout, with a flushed face, and dark hair. The m. flow came regularly from 13 to 47, but afterwards irregularly, being often a mere show. This patient was never nervous or hysterical; she complains of pain at the pit of the stomach, which first appeared when the m. flow became irregular, and says that she is never without

uneasy sensations at the epigastric region, which do not generally interfere with the current occupations of the day, though often paroxysms of acute pain occur, especially at night, when they suddenly awaken her from a sound sleep. The pain then experienced is described as a "tearing pain," and after it has lasted from 10 to 20 minutes, a ropy mucus comes from the mouth, by expuition, without eructations. When the intensity of the pain has abated, the patient lies prostrate for hours, conscious, but incapable of exertion. Sometimes she faints away, and after a bad attack was forced to keep her bed a day or two. During the last 6 months, flushes and perspirations have been abundant. On examination, I found no tumour of the stomach. I recommended 8 oz. of blood to be taken from the arm, the comp. camph. mixture before, and the carb. of soda after meals; 2 comp. col. pills and 10 grs. of Dover's powder on alternate nights, and a mustard or a linseed poultice to be applied to the pit of the stomach every night. After continuing this for a month, the paroxysms came only once a week instead of almost every night; I then ordered a warm bath to be taken for two hours every other night, just before going to bed; a rotation of belladonna and opium plasters, changing them every week, and a scruple of sulphur once a day. This was persisted in for 6 weeks, and then left off, because there had been no paroxysms for 10 days. When the patient left town, I advised her to continue taking the mixture now and then, as well as the pills and the comp. sulphur powder, and to have 2 or 3 oz. of blood withdrawn three times at intervals of 2, 3, and 6 months. This case seems to me best accounted for by admitting a neuralgic affection of the ganglionic nervous centre, for the stomach was blameless, and performed all its functions healthily, and there was no sign of cerebral disorder, neither did this affection obscure the comprehension of its true nature by awakening other nervous disorders. It caused no hysteria, no pseudo-narcotism, not even headache.

This neuralgia of the ganglionic centre was well characterized by the paroxysmal character of the pain, and by the state of exhaustion and faintness it determined.

CASE 33.—*Cardialgia at the c. of life.*—Eliza P., aged 47, tall, slender, dark hair, hazel eyes, and a nervous appearance. Menstruation, after 3 months of pseudo-narcotism, appeared between 13 and 14. Regular from the first, the m. flow came without pain. She married at 16, had 7 children, and menstruation ceased, with a terminal flooding, at 44, after 18 months of m. irregularities. The previous year she had been troubled with nervous symptoms, followed by copious hæmoptysis, which relieved her. She now often suffers much from faintness, flushes, perspirations, and lately, in a slight degree, from bleeding piles. She looks exhausted, stupid, bewildered, and says, that for the last few weeks her head has been “as heavy as lead,” with noises and great giddiness. Every now and then she feels a burning heat run across the chest through the body, and then follow profuse warm perspirations from the chest only. She compares her sensations to those by which the hæmoptysis was preceded. I first saw her on April 3rd, 1850, when I ordered the same treatment as to the former patient, with the exception of 6 drachms of tincture of henbane to the 6 oz. mixture, of which a table-spoonful was to be taken 4 times a day. I also ordered a large plaster of opium and camphor to be placed over the pit of the stomach and the lower part of the chest. 7th.—Much better, but weak, the pains in the chest are removed. A slight vesicular eruption has appeared on the back of the left hand. She fainted twice yesterday, so that I added to the mixture 1 oz. of nitric ether, and in other respects continued the same treatment. 24th.—She looks quite another person, walks firmly, and only feels the pains and noises in the head at rare intervals. For the last few days the whole skin has been in a state of perspiration. June 12th.—The patient is very well; the pains in the head have almost entirely left her,

and she has grown stouter. Sept. 8th.—Since I last saw her, she has been remarkably free from chest pain and headache. There has been no m. flow; but after hearing of the sudden death of a son, she had a severe attack of diarrhoea, and is now very nervous, and can scarcely walk for a numbness in both lower limbs. I repeated the comp. camph. mixture, and ordered an opium plaster to be applied to the pit of the stomach. I saw her again two years after; her health was good, but there had been no return of the m. flow.

In other cases, it is not from intense pain that the patient suffers, but from annoying and singular sensations, and as these do not depend upon any organic affection of the heart or the aorta, and coincide with other nervous symptoms of cessation, it seems fair to ascribe them to some morbid condition of the ganglionic nervous centre. The following cases will explain my meaning.

CASE 34.—*Cardialgia with anomalous epigastric sensations caused by the c. of life.*—Sarah B., tall, stout, and healthy-looking, with broad features, brown hair, and hazel eyes, was 47 when she came to the Paddington Dispensary, Sept. 8th, 1849. The m. flow first appeared at 17, was always regular, and accompanied by pseudo-narcotism. She married at 25, had 2 children, and the m. flow left suddenly, without known cause, at 44. Since then, she has been entirely free from lumbo-abdominal pains, but has suffered much from nervous symptoms. There has been no headache, but a heavy, stupid feeling in the head, with drowsiness in the day, after sleeping well at night, and a forgetfulness of familiar things. She has also been nervous, desponding, and low-spirited; often shedding tears, and complaining of strange sensations in the throat. Ever since cessation, she has been distressed by a fluttering at the pit of the stomach, “as if something were perpetually swinging within her.” It becomes worse after meals, generally abates when she lies down, is seldom felt when in bed, but begins so soon as she rises. When turning the

corner of a street, this sensation makes her feel afraid of losing her centre of gravity and over-balancing herself; and when she has it in bed, she feels "as if a tub were rolling to and fro within her," and then "the head goes too," as "if something rose from the pit of the stomach to the head, making it feel giddy and bewildered." Since cessation, she has been troubled by burning flushes, without perspirations; and there is sometimes a good deal of pudendal irritation. If it had been possible to detect organic disease of the heart, aortic pulsation, or some obstinate dyspeptic condition, this singular symptom would have had a material basis; but it would be illogical to deny the patient's statement, because none of these conditions could be detected. She is much annoyed at the sensation, and has consulted many practitioners, some of whom have told her "it was all nonsense." Sept 8th.—I ordered the comp. camph. mixture before meals, and on going to bed; carb. of soda after meals; a large opium plaster to the pit of the stomach; and a small tea-spoonful of sulphur and magnesia every night. Sept. 15th.—She was better; I ordered a saturnine lotion for the pudendal irritation, and 10 grs. of Dover's powder to be taken every night. Oct. 6th.—Instead of perspirations, a papular eruption has appeared on the shoulders. She feels rather worse than better, but the same remedies were ordered, with the addition of 2 comp. colo. pills to be taken occasionally. Oct. 20th.—All the cerebral symptoms have vanished. She is much better, and can now bustle about; but as the swinging in the epigastric region still remains, it most likely depends upon some abnormal condition of the ganglionic centre, and not upon cerebral disturbance. The improvement coincided with gentle, well-sustained perspirations. I ordered the mixture and soda as before, but discontinued the sulphur and Dover's powders; prescribing, instead, sulphur, 2 oz.; borax, 1 oz.; Dover's powder, 3 scruples, 2 scruples to be taken in a little milk at night. A blister was ordered to the pit of the

stomach. Nov. 6th.—She looks cool and comfortable, much stronger, and quite like another person. Though less troubled by the swinging sensation, it still exists. The blister did little good, so I ordered a rotation of belladonna and opium plasters, each to be worn a week on the epigastric region, and the mixture and comp. sulphur powders to be continued. Nov. 23.—The patient was discharged cured; she felt no epigastric sensations, and was very comfortable and happy.

The same measures were equally successful, in the following similar cases, which also occurred in Dispensary practice. If these anomalous symptoms only occurred in those who have plenty of time to watch the coming of each new pain, and to nurse it until it has taken root in the system, I should lay little stress on such cases; but when they occur in the sturdiest of Eve's daughters, hard-working women without imagination, I look upon the symptoms as indicative of local disease, and not of mental delusion. A strong-looking washerwoman, aged 47, mentioned to me that, after the m. flow had ceased for 6 months, she was, for the first time in her life, obliged to give up work, because exertion caused dreadful pain at the pit of the stomach, and fainting fits often prolonged for three quarters of an hour. Because these symptoms cannot be thoroughly explained, are they to be treated as nonsense? Mrs. W. ceased at 56, and is now 59. After mental excitement, during the last year, she has been subject to aching pains at the pit of the stomach. She sleeps well until 5 A.M., and then arise epigastric sensations, as if something were turning in the stomach. This was followed by palpitations. She has no dyspepsia, but feels nervous, frightened, cannot cry, and, like the "Wandering Jew,"—"she must march on." Belladonna plasters entirely removed the epigastric sensations in a month, but she remained still nervous. Many patients, similarly afflicted, complain of the epigastric region being "all of a boil," and that any sudden impression sets the stomach "all of a flutter," with great subsequent weakness.

CASE 35.—*Cardialgia, with anomalous epigastric symptoms, caused by cessation.*—Sarah J., an average-sized woman, with dark-brown hair, grey eyes, and a semi-chlorotic complexion, came to the Farringdon Dispensary, February 25th, 1853, being then 46, and unmarried. The m. flow appeared at 16, and continued regular, without any nervous or other symptoms, except that, for 2 or 3 days, it was almost always preceded by the eructation of acid water. Flooding came on seven months ago, without any known cause, and the m. flow has since appeared every 6 or 8 weeks, varying in quantity, and being accompanied by abdominal bearing-down pains, by severe and sometimes sick headaches, but she has brought up much less acid water. She has suffered from lowness of spirits, involuntary tears, choking sensations, gasping for breath, and a sensation of fluttering at the pit of the stomach, which she compares to a steam-engine pumping up something from the stomach to the head, inducing headache and giddiness. These sensations do not always exist, appearing when she lies down, so she sleeps propped up in bed. When the attack comes on, it seldom lasts more than half-an-hour, but the night is restless, and the following day she sleeps a good deal in her arm-chair. On careful examination, I could detect no disease of the heart, no aortic pulsation, no signs of gastric disorder, and this patient had no flushes or perspirations. I ordered the comp. camph. mixt. before, and the carb. of soda after meals, 10 grs. of Dover's powder at night, a scruple of the sulphur and borax powder twice a day, a belladonna plaster to the pit of the stomach, and 2 comp. col. pills to be taken occasionally. This treatment was continued 3 months, and completely cured the symptoms. The patient then became regular, and continued so for 6 months, when the m. flow ceased suddenly. She was then much troubled by great debility, headache, giddiness; and for the last year, has been subject to flushes and perspirations, but the epigastric annoyance has not returned.

CASE 36.—*Cardialgia, with anomalous epigastric sensations, caused by cessation.*—Mrs. S. consulted me in 1854. A short, stout lady, aged 49, with a florid face, dark hair, eyes with a wild expression about them, and an excitable manner. The m. flow appeared at 18, and continued regular, though scanty, until she married at 23. She had hysterical attacks before marriage, and became very nervous after, for she could seldom suckle either of her two children without having laughing or crying fits, and aphonia lasted for months during both pregnancies. Thus she continued until 6 months since, when the m. flow became irregular, very scanty, and was preceded, for a few days, by black motions containing a small quantity of blood. She was sometimes sick, but only vomited white froth, and complained much of flatulence and a gnawing, burning sensation at the pit of the stomach, which often made her faint away. The wind she described as “inexhaustible,” and confirmed her statement by a pretty good specimen. The tongue was not furred, and the digestion good. The spasms, as she calls them, the epigastric pain and flatulence, awake her at night from a sound sleep, and she starts up and screams. I ordered the comp. camph. mixt., adding a drachm of chloric ether to each oz.; 30 minims of liq. potass. in a little barley water after meals, and oftener, if flatulence were troublesome; 4 grs. of blue pill, and 2 of ext. of hyoscyamus, with 2 of ext. of gentian every other night; and the following morning 1½ oz. of decoction of aloes. A mustard poultice to be applied, every other night, to the pit of the stomach, and a warm bath to be taken for an hour at least every other day. At the end of a fortnight there was great improvement in the patient; less nervous excitement, less ganglionic pain, and less flatulence. I then ordered the pills and draught to be taken only once a week, the comp. camph. mixt. before, and the alkaline drops after meals; 10 grs. of Dover’s powder every other night, a scruple of the sulphur and borax powder once a day, for the skin had afforded no

relief to the circulation, there being neither flushes nor perspirations since the flow had become irregular; and opium and belladonna plasters in rotation to the pit of the stomach, a fresh one every week. I also recommended 3 oz. of blood to be taken from the arm every second month. This treatment had the desired effect, for there had been no relapse when I last heard from the patient, though, with such a nervous system, a relapse is always to be feared.

Phoebe M., aged 56, has been unusually weak for the last 5 years, ever since cessation. She says she is troubled with "inward hysterics," and "faint heats." There is no aortic pulsation to be detected, but the least thing brings on a violent abdominal beating, and causes her to pass two or three liquid stools, blood from the bowels, or from piles. At times she loses her sight, and cannot sleep. Flushes are generally preceded by heat, pain, or faintness, at the epigastric region, and the sensations have been described by patients as "a ball of fire," or "gnawing, tearing pain," relieved by pressure, and prompting the sufferer to turn on her stomach to press the painful region. Whoever has seen patients suffering from lead colic will recognise in these symptoms, those of that affection.

The following case is that of a lady, who wrote to consult me from Wales, at the suggestion of Dr. Roeser, physician to Otho, King of Greece :—

CASE 37.—*Cardialgia with long-continued intense debility.*—A widow lady, aged 54, was regular until 41, when the m. flow ceased suddenly from being frightened at a revolutionary tumult at Athens. She then became frequently subject to headache and bilious vomiting, which abated on her return to England, in 1853. In 1855, the habit of vomiting completely ceased, but was soon succeeded by other sufferings. After the subsidence of headache, there is a peculiar faintness at the pit of the stomach, which she cannot describe, but which so exhausts her strength, that she

is confined for days to her bed. An intelligent practitioner called the complaint "a nervous affection of the diaphragm," and aperients, tonics, and stimulants, with blisters to the pit of the stomach, were tried ineffectually. Sedatives, given as in the previous cases, relieved this patient, notwithstanding ever-recurring domestic annoyances.

In the following cases the difficulty of breathing from a reflex spasmodic contraction of the diaphragm and intercostal muscles was a predominant symptom. The first is that of a lady, sent to me by a Northampton practitioner.

CASE 38.—Miss O., tall, stout, of a sanguine temperament, was 57 years of age. The m. flow came at 13, and was regular until 50, when it ceased gradually. Until then she never had any serious illness, and no marked hysterical symptoms, though she was always very excitable. Just before cessation she had the shingles, and soon after erysipelas, but with the exception of flushes and gentle perspirations she remained well for 2 years. Five years ago, Miss O. came to see the Great Exhibition, and, without known cause, was, for the first time, seized with the nervous affection for which she consulted me. Without being sick, she goes through the pantomime of sickness; she gasps for breath, but retains consciousness, and does not suffer from positive pain, but from the anguish of not being able to breathe. The attack lasts from 3 to 10 minutes, and is often preceded for several days by a spasmodic affection of the jaws, "as if she could not put the teeth in the right place." A neuralgic flash of pain across the forehead and heavy sweats, are its immediate precursors, and it leaves her in such a state of exhaustion, that she has often kept her bed for several days. These attacks used to occur at short intervals, but lately there has been a longer period between them. Worry brought one on a month ago. She has no epigastric pain during the attack, or at any other time. For the last 3 years there has been a red sediment in the urine, and an unusually frequent desire of passing it.

She has no leucorrhœa, but for 2 years she has been frequently troubled by great irritation of the labia. Hard lumps are said to arise, and, after remaining a few days, to disappear, without suppurating, but sometimes end by a pimple, and lately she has suffered from piles. Miss O. is evidently very nervous, and although grown stouter her energy has not increased, for she talks of the great fatigue it would be for her to take a bath. As Miss O.'s attacks were becoming less and less frequent, no active treatment was required. I recommended the comp. camph. mixture to be taken, off and on, for several months; 20 drops of liquor potassæ in a little water, after meals, and the sulphur and borax at night. Warm baths were also suggested, particularly when there was pudendal irritation, and after a time I advised her taking the syrup of citrate of quinine and iron. This patient enjoyed such excellent health until cessation, that I am disposed to attribute all the subsequent illness, the nervous attacks, the erysipelas, and the pudendal irritation, to the organic changes set on foot by the turn of life. I refer the symptoms to a neuralgic affection of the ganglionic centre, although it was not the seat of pain, as in the next case, which Dr. Marrotte published—*Gaz. des Hôp.*, 1854—under the title of

CASE 39.—*Spasme simultané de la glotte et du diaphragme.*—A woman, aged 44, entered the Hospital of "la Pitié." The m. flow came at 17, with disturbance of health, and at 23 she had frequent m. irregularities; became nervous, had agonizing sensations at the epigastrium, with globus hystericus, and a spasmodic contraction of the diaphragm, continuing so long that her friends feared asphyxia. In these attacks, which occurred about 3 or 4 times a week, she heard what was said, but could not speak. Cessation took place at 42, and the nervousness has increased, for she laughs or cries at the least thing. The day the patient entered the hospital the house-surgeon saw her in one of these attacks. Pain at the pit of the stomach, and a sensation of stricture at

the basis of the chest were first felt, then respiration was suspended, after which followed great efforts to inspire and expire, both being separated by variable intervals, and accompanied by laryngeal whistling. The noise was strongest during inspiration, which was attended by an exaggerated dilatation of the chest, and great efforts to swallow an imaginary bolus. Several of these attacks occurred, lasting from half-a-minute to 3 minutes, and were followed by pain at the pit of the stomach, by fainting and exhaustion. The attacks seemed to abate on pressing the pneumogastric nerves at the inferior edge of the thyroid cartilage.

Voisin also relates, that a case of hysterical hemiplegia was sometimes attended by instinctive and prodigious efforts to breathe, with emission of a singular noise from the glottis. Dr. Marrotte considered his case analogous to the laryngismus stridulus of children; but when the subject was discussed at the *Société de Chirurgie de Paris*, Dr. Beau judiciously observed, that there was no analogy between the two affections. At p. 64 of my work on *Diseases of Women*, I have given the case of a lady, aged 33, whom I have frequently seen similarly attacked; there was no laryngeal spasm, but absence of all respiratory movements for 5 or 6 minutes, as she lay immoveable, and with open mouth. The gradual solution of the spasmodic contraction of the diaphragm could be measured by the increased length of respiration, a full respiration bringing back consciousness. Sir B. Brodie mentions the case of a young lady, in whom the slightest pressure on the epigastric region would bring on paroxysms of suffocation from spasmodic contraction of the walls of the chest, and these cases are what the older authors called *Hysterical Asthma*. In a diminished degree, the symptoms frequently attend an ordinary hysterical attack, though they may occur intensely to women suffering little from the ordinary forms of hysteria, and who present no signs of emphysema, or of heart or lung disease. In my 6 other cases of cardialgic asthma at

the c. of life, the symptoms were less marked than in that of Miss O.; but those described by Dr. Marrotte were reputed not uncommon by Dr. Beau, who mentions having seen a woman, suddenly taken with suffocation, die in two minutes, without any discoverable cause. M. Bacchias, in his thesis, has given several similar cases.

Having described the minor, as well as the most severe forms of cardialgia,—having adduced examples of it, where the prominent symptom was pain or sensations almost baffling description, and complicated by various reflex neuralgia, it is well to inquire the opinions of pathologists, who have described the severe forms of the disease of the ganglionic centre under the names of, *Cardialgia*, *Gastrodynia*, *Leipothymia*, *Gastralgia*, *Hyperæsthesia of the solar plexus*, *Hyperæsthesia of the celiac plexus*, *Hysterical Asthma*, *Sinking Dyspepsia*, *Neurosis of the Vagus*, and some of my cases have been called by other practitioners *a nervous affection of the diaphragm*. Women frequently complain of *chest pains*, or of *spasms*, *inward spasms*, or *inward hysterics*. Hippocrates has noticed agonizing epigastric pain, accompanied by the impossibility of breathing, as having occurred at puberty. F. Hoffman, in describing cardialgia, insists on the intense pain at the pit of the stomach, the sense of anxiety, the difficulty of breathing, and the prostration of strength, but thinks, with Barras, that the stomach alone is affected. Some of Schmidtman's cases of this disease are similar to mine, like that of a girl of 16, who, for several months before menstruation, suffered severely, at the pit of the stomach, for a few days every month. Barras has adopted the term *Gastralgia*, for the ganglionic phenomena occurring at lactation, chlorosis, or pregnancy; and remarks, that his patients refer the sensations of weakness and annihilation which overpower them to the epigastric region. Jolly and Georget also use this term, and note its frequency in women during the reproductive period of life, or whenever the system is strongly reacted

on by the reproductive apparatus. Louyer Villermay gives cases in which hysteria is accompanied by attacks of intense epigastric pain, exhaustion, syncope, or suffocation. Dr. Addison has not exaggerated the frequency of cardialgia in those suffering from uterine affections, and Hufeland and Chambon state that, at the c. of life, women are subject to suffocation and epigastric spasms. Dusourd, remarking on the same phenomena, correctly says, "they simulate asthma," and adds, that "the affections and sensations at the pit of the stomach at the c. of life baffle description."

A valuable contribution to neural pathology has recently been made by Dr. Shearman—*Medical Times*, September 20th, 1856—who has evidently been forcibly struck by cases similar to the preceding. Bearing in mind the fact, already well established by Romberg, that neuralgia of the vagus nerve is indicated by patients becoming ravenous, who could previously take only the smallest quantity of food; and coupling this with Bernard's discovery, that irritation of the origin of the vagus caused sugar to form in the liver, which was removed by the kidneys, and appeared in the urine, Dr. Shearman "concluded that the disease was one of the vagus nerve in some parts of its tract, either centric, peripheral, or intermediate; of irritation in its early stages, and of palsy succeeding to that irritation." He designated it *sinking dyspepsia*, and treated it as he would the neurosis of any other centripetal nerve. If I be not deceived, Dr. Shearman has exaggerated the frequency of neurosis of the vagus, describing as such, those cardialgic affections which are more or less complicated by reflex neuralgia of the vagus nerve. The vagus is a bridge by which the central portions of the two nervous systems are placed in communication. Uniting both nervous systems it resembles both, but principally the sympathetic, by its organization and the modes of its distribution. It is not a well isolated nerve, for it often anastomoses with the sympathetic, and helps to form the celiac

ganglion, by nerves which are both numerous and voluminous. Thus anatomically united, I believe the affections of the vagus and of the epigastric ganglia generally coincide.

Such is the language of previous authors and the views of fellow-practitioners with regard to the disease under consideration ; I shall, therefore, now briefly describe the neuralgia of the central ganglia and plexus, using the old term—cardialgia—because it is generally understood to mean epigastric pain with sensations of debility.

CAUSES OF CARDIALGIA.—Brachet,—*Essay on the Sympathetic System*,—found that the solar plexus and semilunar ganglion of a calf might be repeatedly pricked with a scalpel, without the animal giving any sign of pain, though if he waited until the ganglion appeared inflamed and then pricked it, the animal was evidently hurt. He then pricked and pinched the various spinal nerves leading to the semilunar ganglion and solar plexus, and the animal gave signs of pain ; but when he had cut through several of these nervous filaments, and irritated the portions no longer in communication with the ganglia, no distressing symptoms were exhibited. In an experiment, similarly conducted on another calf, Brachet waited until inflammation had developed pain in the semilunar ganglion, when he cut through all the nervous filaments leading to the ganglion, and it could then be pricked without the animal evincing any signs of suffering ; he then concluded that, in their healthy condition, the semi-lunar ganglion and plexus give no cerebral sensation, and that in an inflamed state they are the seat of pain, only on account of the spinal nerves which go to the ganglion, and transmit its morbid sensations to the brain. Thus it seems that the ganglionic nerves transmit their morbid impressions to their ganglia, and it is in these ganglia that the spinal nerves come and fetch morbid sensations, and transmit the knowledge of them to the brain, so that the mind becomes conscious of an order of sensations, of which, under ordinary circumstances, it is not

destined to take cognizance. Valentin and Dr. Handfield Jones seem to have arrived at similar conclusions, which are as applicable to neuralgic as to inflammatory pain. A blow at the pit of the stomach does not kill by inflammation, but by a neuralgic shock, so suddenly intense, that the laws of pugilism forbid "to hit under the belt." The blow may, however, be so graduated as to determine corresponding shades of neuralgia and of leipothymia, while, in nightmare, anomalous epigastric symptoms are produced by indigestion. The agonies of vomiting are partly due to the more or less intense concussion of the epigastric ganglia, which explains the intense debility it causes, and the not unfrequent deaths that occur when,—as on board ship,—it could not be checked. Besides the capability of being stunned by a blow externally applied, the great ganglia are susceptible of receiving shocks from centric causes spontaneously evolved in the system. "*Miseros vidi ægrotos,*" says Lobstein, "*qui, vix somno dediti, subito fuerunt expergefacti atque valido et quasi electrico ictu terri, ab epigastrio proficiscente; crudele phenomenon, quod per plurimum mensium spatium duraverat.*" Other authors have noticed the same strange sensation, but independently of these rare occurrences, it will be obvious to the pathologist, that the ganglionic centre is constantly receiving, from causes spontaneously arising in the frame, milder shocks, which determine the varied forms and degrees of cardialgia. This occurs to both sexes during convalescence, in consequence of the undue strain put on the ganglionic system for the increased impulse required by nutrition; in helminthiasis, when the expansions of ganglionic nerves are peculiarly susceptible of being irritated by worms; in agues, of which the ganglionic system is the prime motor; in hæmorrhoidal and other flows, when indiscreetly stopped by cold water; in chlorosis, hypochondriasis, and in the earliest stages of insanity, before the ganglionic are cast into shade by the magnitude of cerebral symptoms. But the greatest and most frequent cause of dis-

turbance of the ganglionic centres, is the strong reaction of the reproductive organs: puberty, menstruation, pregnancy, lactation, and cessation, almost always cause slight forms of cardialgia, and sometimes the severest, leading to suicide and to the varied forms of insanity. Woman suffers more than man, for her ganglionic nervous system is doubly taxed for self-nutrition and that of the race, and if she be susceptible of so often "tumbling to pieces," and of being again knitted firmly together, it is because her ganglionic nervous system has been endowed with extraordinary powers for good or for evil; but man does not escape. Schmidtman, who paid so much attention to nervous affections, says, and I confirm the correctness of the remark, "whenever a young man consults me for cardialgia, I suspect onanism." Cardialgia, under varied forms, is frequently observed in spermatorrhœa, and explains why some commit suicide, and many become hypochondriacs. The *debauché* and the *roué* are frequently at a loss for terms to express the annoyance of their sufferings at the pit of the stomach.

SYMPTOMS AND DIAGNOSIS.—At puberty, during irregularly performed menstruation, pregnancy, lactation, or the c. of life, the pains at the pit of the stomach may be said to depend on hyperæsthesia of the solar ganglia and celiac plexus, particularly if the patient has been subject to causes likely to produce nervous affections, if cerebro-spinal neuralgia co-exist and has been intermittent, and if nervous symptoms be unexplained by organic lesions of the stomach. There may be oppression and faintness, with or without violent pain at the pit of the stomach; sensations like "the fluttering of a bird," "the throbbing of an animal," or those "of internal rawness," "of gnawing and of tearing;" but these feelings do not depend upon gastric inflammation, since the stomach, even in some of the most distressing cases, can digest anything. I, therefore, adopt Lobstein's opinion, that they indicate a state of suffering of the ganglionic nervous centre—"Hodie cer-

tissime evictum est, quod tot numerosæ sensationes, quæ in epigastrio percipiuntur, neque ad musculos, neque ad vasa, neque ad organa gastrica sint referenda, sed unice ad plexum nervorum gangliosum, trunco coeliaco insidentem, atque a Wrisbergio summo cum jure *cerebrum abdominale* vocatum." Romberg is "inclined to think, that the peculiar sense of fainting and annihilation accompanying the pain, is pathognomonic of coeliac neuralgia, and distinguishes it from neuralgia of the vagus." A sensation of stoppage in the œsophagus, of choking, or of scalding, rising from the stomach to the throat, with the regurgitation of ropy mucus or vomiting; copious perspirations or a greater flow of urine, will occur when the pneumogastric is affected with neurosis. Pressure often relieves, though a slight touch may sometimes increase the pain. Women instinctively unfasten their clothes, and some of my patients have left off stays on account of their liability to cardialgia. The debility entailed by a severe attack of cardialgia is beyond the conception of those who have not witnessed it. A good night's rest does not restore the usual strength, which seems drained from its fountain head, and does not return without several days and nights of real repose. The intermittent character of the pain has been well indicated by Schmidtman, *Per intervalla vexat cardialgia et remittet intermittetque*. I have seen the worst paroxysms of cardialgia come on in the midst of perfect health and without any apparent cause, but I have seldom seen them assume the tertian type, said by Dr. Shearman to be of frequent occurrence. Whether the presence of sugar in the urine is a pathognomonic sign of neurosis of the vagus, as stated by Dr. Shearman, is to me very doubtful, for having shown how intimately the vagus and the coeliac ganglia are united, I question whether the solution of a nutrition problem, like that of the formation of sugar in the blood, is not rather to be sought in that nervous system, which is chiefly connected with nutrition; but this is a fit subject for future researches.

Admitting, with Romberg, that the sense of repletion after taking a small amount of food, and the absence of satiety after taking a large quantity, indicates hyperæsthesia of the gastric branches of the vagus, and that the accompanying sensations of burning or gnawing at the pit of the stomach, with overpowering debility, indicate celiac neuralgia, the distinction has no practical bearings, as Romberg himself admits. Cardialgia with all its singularities has been described ; but in the next chapter its agency in the production of reflex cerebral diseases will become a subject of inquiry.

TREATMENT OF CARDIALGIA.—The volume of the brain, its complicated and regular structure, show it to be contrived for important ends, and although the relation existing between the intellectual faculties and the structure of the brain cannot be comprehended, it must be admitted. It is perfectly incomprehensible that so much vital force for good or for evil should be centralized in little irregular lumps of nervous matter, and in sundry tangled skeins of nerves, the geography of which, like that of the polar regions, is differently mapped out by successive observers ; but though incomprehensible, it is no less certain that these knots of nervous matter, and these tangled skeins of nerves, are indissolubly connected with the supreme power which guides the processes of healthy or diseased nutrition. This is proved by the writings of Winslow, Bichat, Reil, Wilson, Brachet, Philip, Broussais, Lobstein, &c. ; and I refer the reader to the works of these authors, and to the late experiments of Claude Bernard and D. Axmann, as well as to my work on *Diseases of Women*, in which I have condensed what is known about the physiology and pathology of the ganglionic nervous system. Whether, with Bichat, anatomists look upon the ganglionic nervous system as independent, or with Haller, as an offshoot of the cerebro-spinal system, I, as a physiologist, follow Müller, who considers the ganglia the source of the energies of the sympathetic nerves, and the fountains from which the ganglionic

draw the constant, gradual, galvanoid action which is kept up in the capillaries throughout the frame. It, moreover, appears that each separate ganglion sends its contingent of nervous influence to the central ganglia, which react on the brain, and that the force with which the ganglionic nervous system is endowed, is as much centralized in the epigastric region as the intellectual faculties are in the brain. Discordant as medical theories generally are, it is singular how often the importance of considering vital force as centralized in this epigastric centre has been prominently asserted; Galen and Fernellius called it the principal lever of the human forces; Van Helmont there placed his *Archæus*, or principal ruling power; Wrisberg and Lobstein treated of it as *the cerebrum abdominale*; Hunter called it the sensitive centre, and the centre of sympathies; and Bichat, Broussais, &c., considered it the prime conductor of nervous influence. The importance of this region as a centre of power, is even shown by the erroneous theories which made some medical men place the seat of sensibility in the diaphragm, and by the popular belief that the human passions are centred in the præcordia, whereas they merely react upon it as stimulants when the passions are of an exhilarating nature, or as depressants when they are of a contrary nature. The common consent of mankind, the convictions of many illustrious men, and my own experience, fully persuade me that the epigastric region is a real centre of nervous power, and I therefore seek to act upon it by such remedies as seem likely to enable one to increase or diminish its power or to regulate its disordered action. This should be done, if only to relieve the painful, distressing, and the unaccountable sensations experienced by patients in this region; but being firmly convinced that this ganglionic nervous centre is in constant action and reaction on the brain, and having seen it so often derange the mental faculties at puberty, during pregnancy, puerperality, lactation, and cessation, I deem it imperatively urgent to apply remedies to this centre. Another

important reason for seeking in every way to relieve epigastric pain and anomalous sensations at the c. of life, is, that women will not long endure these sufferings without seeking relief. If the faculty do not relieve them, they will instinctively fly to stimulants, the poor to porter and gin, the rich to wine and brandy; is it not then better to try to alleviate these distressing symptoms by medicine, than to run the risk of women becoming gradually addicted to the most deplorable habits?

The chapter on the general treatment of diseases at the c. of life must be borne in mind, inasmuch as local applications can be of little utility without constitutional treatment. When the mild forms of cardialgia are presented, the epigastric uneasiness, the sinking and faintness, I first ascertain whether these sensations depend upon foul secretions requiring purgatives, before ordering my sedative mixture before meals, the alkali after meals; 3 grs. of blue pill and 2 of ext. of hyosc., every, or every other night; a mustard, or a hot linseed-meal poultice, sprinkled with coarsely-powdered camphor every other night; dry cupping, as recommended by Galen, and oil-silk over a cotton wool poultice, or a camphor sachet, to be worn during the day on the pit of the stomach. If the pains continue, I prescribe a pitch, a belladonna, or an opium plaster, made soft, so as to embody from 5 to 10 grains of opium to the square inch. The plaster should be left on, and should it fail to relieve, I repeat it every 4 or 5 days, or I apply two; one to the pit of the stomach, and the other to the sensitive region of the spinal column; or I order alternately, an opium or a belladonna plaster every 4th day. If there be sleeplessness and nervous irritability, I give from 5 to 10 grs. of Dover's powder every, or every other night; and, with the intention of acting on the seat of the disease, I have given the 12th of a gr. of acet. of morphine every one or two hours, until the induction of drowsiness. If, besides the sensation of prostration, there be downright pain, resisting the local means previously detailed, I sometimes have, with

benefit, applied a piece of lint steeped in chloroform, and covered with oil-silk, to the pit of the stomach, retaining it in its place by a bandage. Dr. Ameuille has, I find, thus used chloroform for similar affections. A blister, though often ineffectual, has sometimes relieved the pain ; and this reminds me that Comparetti and Barras derived no utility from blisters in the gastralgic affections they attended at Venice and at Paris. Lorry also thought them of little use. In the worst cases of cardialgia, where there were fits of agonizing epigastric pain, its intensity was often abated by from 30 to 60 drops of aromatic spirits of ammonia in the smallest possible quantity of water ; or by the same quantity of chloroform on a lump of white sugar, and melted in a little water ; or by chloric ether, which is less disagreeable to take ; or by 20 drops of sulphuric ether in one ounce of which a drachm of camphor had been dissolved ; or by a drop of essential oil of peppermint, on a lump of sugar, and dissolved in water. In some cases the paroxysm would take its course, and abate according to some law of its own ; in others, all milder remedies failing, I have denuded the skin of the epigastric region to the extent of a crown piece, by strong blistering tincture, or placed on its surface a piece of linen wetted with strong spirits of ammonia, applying afterwards from 3 to 6 grs. of acetate of morphine. This plan of treatment has been praised by Barras. Veratria and aconitine are also invaluable agents in difficult cases. I have employed them externally, as Dr. Turnbull has done in other affections, incorporating the active agent with lard, 1 scruple of veratria, or 1 gr. of aconitine to 1 oz. of lard, directing a piece the size of a filbert to be rubbed on the epigastric region for a quarter of an hour, until warm and pricking sensations were excited. This application may be repeated every 2nd or 3rd day. Trousseau and Mathieu speak highly of this method of applying veratria ; and the following liniment, recommended by Dr. Oldham for the neuralgic affections of women, may be tried with advantage :

Ext. belladonnæ	ʒss.
Tinct. aconiti (Fleming's)	ʒiv.
Tinct. saponis com.	ʒiiss.

Such are the plans of treatment habitually adopted ; I shall now briefly notice some medicines, praised by good authorities, but of which I have only made an occasional use.

Dehaen, Barras, and many who have paid attention to the obscure affections under consideration, praise, equally with myself, the internal and external exhibition of opium, hyoscyamus, camphor, and cherry-laurel water. Dumas, of Montpellier, frequently prescribed for nervous affections of the abdominal organs :—

Castor	30 grs.
Camphor	15 „
Opium	8 „
Conserve of roses, q.s.	

To be divided into 15 doses, one to be taken every day. Dr. Shearman gives half-a-grain of nitrate of silver, with the same quantity of opium, and 5 grains of ext. of camomile, three times a day ; sulphate of quinine, diluted in an acid mixture ; and ʒi. doses of potash water, to prevent the formation of sugar in the urine. J. Frank considers that the principal remedy for neuralgia of the cæliac plexus is oxide of bismuth, the third of a grain being given two or three times a-day, but not continued too long, for fear of completely deadening the sensibility of the nerves. He says, that “oxide of bismuth has a decided influence on the nerves of the stomach, and that ox. of zinc is endowed with a similar power of appeasing the nervous affections of the cæliac, and of the abdominal ganglionic plexus,”—assertions bearing the stamp of exaggeration. Hufeland writes favourably of hydrocyanate of zinc, in 1 to 4 gr. doses two or three times a-day. Nitrate of bismuth is frequently given in 10 to 20 gr. doses, suspended in a little mucilage, and may be repeatedly taken on an

empty stomach. Acetate of lead, in one-sixth of a grain doses, has been frequently given, with success, by J. Frank, in cases of cardialgia caused by onanism, and accompanied by spermatorrhœa; but this I have never tried, nor the powder of nux vomica in 2 gr. doses, nor its ext. in a 1 gr. dose, strongly recommended by Schmidtman. Comparetti and Barras speak highly of ice to calm pain in spasmodic affections of the stomach, to increase the sensation of strength, and the peristaltic movement of the intestines. This reminds me that, in some severe cases, when the patient could not swallow cold water, or anything warm, there was a strong inclination for ices; which, as well as Nesselrode pudding, could be easily swallowed, and the pain was for a time relieved. Intense heat is as serviceable in this, as in other neuralgic affections. The actual cautery and moxas to the pit of the stomach have been used in olden times, so transcurrent cauterization might now be useful. The Chinese relieve cardialgia by plunging acupuncture needles into the epigastric region; and Dr. Despine speaks favourably of the hot springs of Aix en Savoie, taken internally, and given in baths and shower-baths to the abdominal region.

IV. CHLOROSIS.—Dr. Merei affirms that chlorosis is one of the most extensively diffused pathological conditions of the present age. It is, doubtless, often met with in the years which follow puberty, but all should recognise its frequency at the critical periods of woman's reproductive life. Caseaux has pointed it out during pregnancy; Bland, of Beaucaire, who has carefully studied the action of ferruginous preparations, admits it to be more common than is generally believed among adults; and Dusourd has recognised it at the c. of life. Indeed, every one must have noticed the altered appearance of some near relative at that period, the change of skin from a healthy hue, to the waxy, sallow tint, the bloodless lip, the pale white of the eye, with headache, pseudo-narcotism, general debility, reluctance for exercise and for food. Leaving out of

the question all cases in which anæmia was caused by flooding, it is well proved that puberty, pregnancy, lactation and cessation may cause the relative proportions of the blood globules to fall low enough to produce chlorosis. This is doubtless a blood disease, but it originates in some peculiar loss of power of the ganglionic nervous system which actuates the blood-vessels and gives vitality to the blood. I have long believed, with Dr. Jolly, of Paris, that chlorosis is a neuralgic affection of the ganglionic nervous system ; and with Dr. H. Jones, that in many cases, occurring amongst the poorer classes in London, the action of malarious influences upon the ganglionic system is the first link in the chain of causation ; but such cases must not be severed from others equally frequent, wherein chlorosis arises under the healthiest circumstances and in the wealthiest families, showing that the ganglionic system may find within the economy another cause of chlorosis. At the c. of life, as at puberty, the nervous energy of the ovaria is below par, and the epigastric centre, not being sufficiently stimulated, is unable to promote the healthy performance of nutrition, the blood is impoverished, the whole system suffers from a neuralgic affection of the ganglionic nervous system, and chlorosis follows. The treatment of chlorosis is well known. Chalybeates are as useful as at puberty, but smaller doses are required. I generally give from 15 to 30 drops of Bullock's syrup of citrate of iron, or citrate of iron in effervescing draughts, adding ether or tinct. of ambergris to my sedative mixture. Chlorosis is shown to be a neuralgic affection of the ganglionic system, because at all periods of life it is accompanied by some form of cardialgia, which renders epigastric applications necessary for its cure ; and if it so often relapses, it is partly because no epigastric medication has been made.

CHAPTER XI.

DISEASES OF THE BRAIN.

TABLE XXVIII.

*Frequency of Cerebral Diseases in 500 Women at the
c. of Life.*

Nervous irritability	459
Headache	208
Monthly headache	7
Sick headache	92
Hemicrania	3
Apoplexy and Hemiplegia	6
Pseudo-narcotism	277
Hysterical state, or hystericism	146
Hysterical fits, only since cessation	3
Globus hystericus, only since cessation	17
Laughing and crying fits, only since cessation	4
Monthly hysterical symptoms	1
Hysterical flatulence	8
Prolonged fits of unconsciousness	3
Epilepsy, only since cessation	3
Epilepsy, much aggravated	5
Delirium	3
Insanity	16

1261

Thus 500 women divided 1261 forms of cerebral disease, confirming the general belief in the frequency of cerebral affections at the c. of life. After cessation, the liability to nervous affections greatly decreases; headache, nervous irritability, and pseudo-narcotism, have not the same intensity; but

cerebral hæmorrhage, apoplexy, and softening of the brain become more frequent.

Many have noticed the frequency of cerebral affections. Gardanne and Dr. Ashwell state, that even when most favourably passed, the c. of life brings with it a train of nervous symptoms. The Registrar-General's Reports prove that 1599 women, from 40 to 50 years of age, died from cerebral disease, while it only proved fatal to 1351 men at the same period of life. Gardanne and B. de Boismont speak of the tendency to headache; Dr. G. Bedford alludes to the frequency, the intensity, and eccentricity of the nervous symptoms at this epoch; and B. de Boismont thinks transitory delirium and insanity then of frequent occurrence. I do not believe it to be so in England, though a large class of women are thoroughly unhinged by the c. of life being left to take its course: eccentricity embitters their existence and the lives of those around them; and should they lose fortune or friends, they may become insane, or may erroneously be thought so by relatives whom they irritate by their eccentric unkindness; hence arise scandalous suits and the squandering of fortunes among lawyers, while all this mental disturbance and heart anguish—this sacrifice of property and of character, might, in general, be prevented by the systematic treatment of the nervous symptoms when they first occur. I cannot repeat too often, that this crisis, like puberty, weighs upon the subsequent lifetime of women, and, thus considered, the nervous symptoms of the c. of life assume vast importance. In order to understand them better, I shall throw on them the light derived from the study of the same affections at other phases of the reproductive function, and, after giving facts and the results of experience, attempt to account for their production and discuss their treatment.

NERVOUSNESS AND MORBID IRRITABILITY.—By this is meant that the nervous system is more than usually susceptible to external impressions, such as cold, light, noise, to the stimulus

of the internal organs and to that of emotion. There are not only innumerable degrees, but various modes of nervousness. If patients are asked if they are nervous, they always understand the term to mean hysterical, and are often indignant at the question, though they will readily own that, without being over-sensitive to emotional stimuli, they cannot bear the slightest noise. In some, the temper remains unruffled, but they are ready "to jump out of their skin" at the jarring of a door, and are in agony at hearing the leaves of a book turned over. To some it is torture to hear others converse; others say, that on the most trivial occurrence, they "feel pulses beat all over them;" they "feel all of a tremble, all of a shake;" "my flesh feels so heavy upon me," said one Dispensary patient, and "sensation is my calamity, not pain," was the eloquent expression of another; while one could not "stop in church because she felt the people too close." The fidgets—the *anxietas tibiæ* of nosologists—are a very frequent expression of nervousness. They indicate *nervous plethora*, seeking to be relieved by exercise or muscular action. Although one cannot determine the anatomical conditions of the nerves when they are the seat of nervous congestion, I think it should be admitted as much as the congestion of blood-vessels by blood. The nervous fluid is too subtle to be seen or felt, but the mind can deduce the fact of its being too abundant from the effects produced. I first allude to this nervous irritability because it is the "materia prima" of all nervous affections, the basis on which they rest, and the soil in which they grow; but to speak of nervousness as *hysteria* is to perpetuate the state of confusion out of which the pathology of the nervous system has scarcely emerged. The last table shows the frequency of nervous irritability at the c. of life, and I believe it to be then, as at puberty, of almost constant occurrence, just as frogs are more susceptible to electrical influence, every returning spring.

HEADACHE.—This is a very frequent symptom at the c.

of life, as at puberty. It occurred in 208 of my cases. Some, like E. P., aged 55, never had a headache until cessation, but has ever since suffered from it more or less. With regard to its seat, it may be met with in the following order of frequency, viz. :—In the temple and forehead, at the top of the head, and at the occiput. The last-named places have been noticed by Friend, Etmuller, and others, as most habitual; I have rarely met with it in the occiput, though if Gall's localization were correct, that should be its most frequent seat. Burdach's assertion, that ulceration of the neck of the womb induces occipital headache, seems made to agree with preconceived views. With regard to the nature of this pain, it is described as "shooting," "throbbing," "gnawing," "burning," or as "if the head were in a screw." It varies in intensity, from that slight amount which merely inconveniences, to that agonizing pain sufficient to prostrate a hard-working woman, and make her lay by for some days. In 92 cases the patients suffered from sick headache. Without any signs of gastric disease there was nausea or vomiting of mucus; and need one be surprised at sickness sometimes accompanying cessation, when it often accompanies puberty, and sometimes attends the m. flow? Headache may, doubtless, be caused by plethora, but generally it is a nervous symptom and behaves as such. I have had frequent opportunities of observing the alternation of violent hemicrania and cardialgia, the one arising as the other abated; I have also witnessed a marked antagonism between the cerebral and the pelvic ends of the spinal cord, the violent headache subsiding as pain became intense in the sacrum; and as a general rule those who suffer much from cerebral, are less troubled by pelvic pains.

CASE 40.—*Periodical headache at cessation.*—Sarah T., a tall, stout woman, with the capillary vessels of the cheeks very apparent, looks nervous and as if going to cry, was 56 in September, 1855, when she came to the Farringdon Dispensary. The m. flow appeared at 16, and left gradually at

51, after dodging her for a year. She then suffered for a twelvemonth from flushes and perspirations, particularly at meals; otherwise she was pretty well all day, but at 2 o'clock in the morning a severe headache generally awoke her from a sound sleep. This occurred "off and on, for two years after cessation," says the patient, and her account is confirmed by her daughter. A few months since she lost her husband. The shock induced great debility, and caused the flushes and drenching perspirations to return, 4 years after their subsidence.

CASE 41.—*Periodical hemicrania at cessation*.—Miss M., aged 45, is tall, slight, and of a sallow complexion. The m. flow left gradually at 43, without flooding, after having been always regular, though frequently accompanied by headache and *globus hystericus*. Ever since cessation, these symptoms have become worse, and every fortnight she is laid up with hemicrania, for 2 or 3 days, during which time there is nausea and the vomiting of acid fluid. The tongue is clean, and the digestion good.

APOPLEXY AND HEMIPLEGIA.—Notwithstanding Dusourd's contrary assertion, women are not much subject to apoplexy at the c. of life. I therefore consider the following to be exceptional cases.

CASE 42.—*Apoplectic fits, caused by cessation*.—Mary C., of small stature, heavily built, with black hair, hazel eyes, face fully injected with blood, and a very short neck, was 55 when she came to the Farringdon Dispensary, June 5th, 1855. The m. flow appeared at 13, and was regular until she married at 19. During 9 years of her married life she seems to have been a constant victim of uterine inflammation. Seven times in the family-way, she never went the full time. After losing her husband, at 28, the uterine disease gradually abated; once the abdomen swelled very much, and at the 9th month she had a flooding, the sanguineous discharge lasting a month. For the last 10 years of being regular, the m. flow was painless and very abundant. It ceased suddenly,

when she was 51. Piles, to which she had been slightly subject when pregnant, frequently bled freely for the year following cessation, and she was troubled with drenching perspirations. During this time she lost the headaches to which she had become liable soon after the piles ceased to bleed, but she had severe pains at the pit of the stomach, extreme debility, loss of speech, and numbness on the right side of the body. On being bled and cupped she got well. A year ago, without appreciable cause, she had a similar attack, and lost the use of her right side. Bleeding and energetic purgatives gave relief, and she remained well till lately. Piles, which had again bled, ceased bleeding, and then came a third attack of hemiplegia. She was cupped at the nape of the neck, and for a fortnight took 4 grains of calomel every other night, and a black draught the following morning. Hot pediluvia and cold applications to the head were also prescribed. On getting better, she took a scruple of nitre thrice a day in a little toast and water, and half a drachm of flour of sulphur at night. In November, 1855, after a month of perfect health, she had a 4th attack of hemiplegia of the right side, and remained insensible for 3 hours. As it was difficult to bleed the patient, 8 ounces of blood were taken from the nape of the neck, and the previous treatment again enacted; extreme temperance, spare diet, and gentle exercise, being recommended. Whether these repeated attacks of hemiplegia depend upon cerebral congestion—upon the effusion of blood into the substance of the brain, is questionable; but it is evident that the patient's life runs great risks. I seldom see her, except when an attack has come on or is impending; but, if allowed, I would, as in similar cases, have a small quantity of blood taken away every month, then every 2 or 3 months. If the blood could not be taken from a vein, I would apply leeches to the anus.

CASE 43.—*Hemiplegia from cerebral congestion or hæmorrhage,—successive attacks at four years' interval.*—

Eliza C., aged 47, first came to the Farringdon Dispensary, February 18, 1853, being then 44. She is of average stature and size, with brown hair, hazel eyes, and flushed face. The m. flow came at 14, and continued regular, but profuse, and with unusually severe abdominal pains. She married at 15. The m. flow ceased for 8 months, and then a large blood clot came away, and for several years either the m. flow came every fortnight, or was absent for 5 or 6 weeks, being then followed by a voluminous clot and great flooding. She never conceived, was once flooded for 3 weeks, and for the last 6 months the m. flow has appeared every fortnight. Such being her state of health, without known cause she was suddenly seized with hemiplegia of the right side. She walked to the Dispensary, dragging the right leg, the right arm was numb, often felt like pins and needles, and could be pinched without causing pain. She looks stupid, complains of headache, loss of memory, temporary loss of sight, stutters in speaking, and cannot find the words she wants. The attack of hemiplegia was accompanied by epistaxis from the right nostril. She had been already cupped at the nape of the neck, and I ordered 8 oz. more blood to be withdrawn in the same way, and gave calomel with opium, and black draught. February 21st and 24th she lost blood from the right nostril; I continued the same measures, 8 oz. more blood were withdrawn, and immediately afterwards came a violent flooding, which continued until March 5th, when I ordered alum injections, antimonials, and 1 gr. of opium, with 3 of c. ext. of colocynth, to be taken at night. During the flooding, blood frequently trickled down the right nostril. Notwithstanding the quantity of blood lost by the patient, her strength seems but little impaired; she is quite conscious, and walks to the Dispensary; but the hemiplegic symptoms are as marked as ever. May 12th.—She has returned from the country and is better, but still complains of numbness of the right side. She can say what she wants, but has a difficulty of utterance, and com-

plaints so much of pain on the right side of the head, that I ordered her to rub in twice a day the size of a walnut of 2 oz. of mercurial ointment, mixed with 2 drachms of ext. of belladonna, and to take the com. camph. mixture, and the aloes and myrrh pills at night. June 16th.—After having rubbed in the ointment 4 times, her head felt very sore, and “as if it was heavier and larger than usual.” The pupils were so dilated she could not see distinctly, then salivation came on, soon subsided, after which she was better in every way, the head was no longer painful, and she could use her right arm and leg, though they remained weak. I lost sight of the patient until May 31st, 1856, when she appeared the same as when I first saw her, except that her face, instead of being flushed, was spotted with dabs of capillary injection. The flooding, during her previous illness, had been the last appearance of the m. flow, and since then she had suffered more or less from headache, abdominal pains, faintness, flushes, and perspirations. Lately the head has been very painful, she finds it difficult to keep awake, and cannot bear to be spoken to; the right arm and leg are almost useless; the right hand is soddened with perspiration, has pricking sensations, and scarcely feels when it is pinched. Blood has been passed in the urine, and she says that hæmaturia occurred also in her first attack. I ordered 8 oz. of blood to be withdrawn as before, calomel and opium to be taken at night, and a black draught in the morning. June 25th.—She was cupped to the same amount on the 4th and 18th, the bowels had been kept freely open, antimonials had been administered, ice applied to the head, and the patient was sometimes better, sometimes worse, often bewildered, at times ungovernable, but the hemiplegia symptoms remained stationary. I again ordered the mercurial and belladonna ointment to the head; she rubbed in 2 oz., the head seemed swollen, she felt stupified, could not see clearly for 3 days, and was salivated. The head and right side then became much better, but the right hand is still powerless.

She had a slight m. flow for 3 days, after an interval of as many years, and I prescribed comp. col. pills, the camph. mixt., and 15 grs. of nitre 3 times a day. Finding the hemiplegic symptoms somewhat worse on the 16th, I advised the posterior half of the head to be shaven, and the ointment to be applied again. This was done with decidedly good effect; and when I saw the patient on August 20th, she no longer suffered from hemiplegia, and was able to attend to her domestic duties, although suffering from debility, headache, and nervous symptoms, most likely increased by occasional fits of intemperance.

Proper treatment and dietetic measures after the first severe attack would most probably have prevented a relapse. The ataxic or revolutionary condition of the governing powers of the system is shown by blood coming at the same time from the womb, kidneys, nose, and the nape of the neck. The sudden good effect of the mercurial and belladonna ointment recommends a plan I have found equally useful in other cases. The salivation soon abated on leaving off the mercurial inunctions, as I have noticed in other cases similarly treated, though, if it had lasted the usual time, the remedy is warranted by the severity of the disease. Dr. Teissier, of Paris, has published—*Gaz. Med. de Paris*, 1851—a case of periodical nervous apoplexy.

CASE 44.—*Periodical nervous apoplexy*.—A lady, 60 years of age, since the c. of life, has every month, at the period she had been accustomed to menstruate, the following attack. She becomes unconscious, and on recovering her senses one-half of her body is paralysed, and her speech is affected. This continues for several days, and gradually disappears, to return at the next monthly period. Being naturally of a calm and tranquil disposition, those about her know when the attacks are coming on by her agitation and restlessness.

PSEUDO-NARCOTISM.—The following cases will show the meaning I wish to convey by this term.

CASE 45.—*Pseudo-narcotism at cessation*.—Mary H., very stout, middling stature, sanguine temperament, flushed face, heavy eyes, uncertain walk and attitude, with all the appearance of being intoxicated, was 60 when she came to the Paddington Dispensary, September 24th, 1849. The m. flow appeared at 11 with giddiness and sleepiness; it continued regular and abundant, though always accompanied by “a drowsy giddiness,” for which she was often bled and cupped. She married at 21, had a child at 26. The dodging-time began at 40, and lasted until 58, when cessation occurred. During these 18 years the m. flow was irregular, being sometimes very scanty; at others, a flooding. She was also troubled with leucorrhœa, bad back pains, faintings, flushes, sweats, headaches, and was so giddy that she frequently tumbled down, and people thought her tipsy. When walking out, she was always obliged to get near the railings, so as to have something to hold by. She said she never drank anything but cold water, and her landlady confirmed her statement. About 58, when the flow stopped, she was at St. George’s Hospital for ascites, and small sub-cutaneous abscesses, which burst. Diuretics considerably reduced the ascites, and for the last 6 months she has suffered more from cerebral symptoms. Intense headache, with pain, and singing in the ears, pains in the eyes, chills, and flushes, are what now most distress her; and as she sits before me, the perspiration trickles down her face. Every 28 days these symptoms are most troublesome, and remain so for a few days. She has been unable to do any regular work for 5 years. I had 8 ounces of blood taken from the patient, ordered a brisk purgative, to be repeated every week, several glasses of cream of tartar lemonade to be taken daily, and warm pediluvia every night. By following this treatment for a few weeks, the case was greatly improved; but she could not afford baths, and would not allow the bleeding to be repeated, whereas if ever there was a case in which small repeated bleedings

would have been beneficial it was this. She was of full habit, bore bleeding well, and the m. flow had always been abundant; 3 to 4 ounces of blood should have been taken from the arm every month for the first 3 months, then every 2nd month, then every 3rd, and so on, adding baths, purgatives, alkalies, and mild sedatives. This is one of the most marked instances of pseudo-narcotism I have met with. It appeared with first menstruation, returned at every m. period, and completely incapacitated the patient from earning her livelihood for five years.

What name then is to be given to this nervous affection? It cannot be called congestion of the brain, for there were no signs of this condition in the following case, though the nervous symptoms were similar:—

CASE 46.—*Pseudo-narcotism caused by the c. of life.*—Mary G., thin, tall, with dark hair, delicate complexion, drowsy look, and, when roused, looks as if she expected to see something dreadful, came to the Farringdon Dispensary, July 25th, 1854. She was then 49 and single. The m. flow appeared at 14, and continued regular, with little pain or other disturbance until the last 2 years, when it became irregular, and like “brown cinder dust.” She also became unusually nervous, “feels silly, as if her head were one dead lump,” and “five minutes after putting things away, she forgets where she has put them.” More than once she has lost her way in streets well known to her. She sleeps all night, wakes unrefreshed, often falls asleep during the day; sometimes feels stunned, and loses her senses for an hour. She complains of a *hot* pain at the pit of the stomach, with frequent sensations of sinking, which pain is worse after eating. Sometimes she will stop 3 days without food, and then eat ravenously. For the last 6 months the bowels have been costive, and for the last 2 years, she has been troubled with flushes and sweats. I ordered the comp. camph. mixt. before meals, the carb. of soda after, 3 grains of blue pill, and

2 of ext. of hyoscyamus every night, also 10 grains of Dover's powder, a large belladonna plaster to the pit of the stomach, with hot pediluvia every night. This was continued for a week, and I never saw greater improvement in so short a space of time. The eyes seemed at peace with surrounding objects; she looked cool, comfortable, and self-possessed; she had lost her strange feelings, and was less drowsy during the day. The improvement was lasting; and I only see the patient now and then, when there is a slight return of the head symptoms. Pseudo-narcotism is generally allied to other cerebral symptoms, but in this case pseudo-narcotism appeared almost alone. There was no headache, sick-headache, or hysteria.

Again I ask, what is the name of this nervous affection? Congestion of the brain? There was none. Anæmia? There was none. Neither can it be called Hysteria, for that would be to adopt the common custom of calling *hysteria* any nervous affection that is little understood. I say that these patients suffered from pseudo-narcotism; and if it be urged that it is useless to give a new name to exceptional cases, I reply that this affection is common at all the critical epochs of woman's life, especially at the change, when I observed it in 277 out of 500 cases.

At puberty, girls previously lively and clever, become stupid and useless when sent on a message, as they frequently forget what they were sent for, or how to come back; or when at home, they will frequently let things fall out of their hands, and often fall down in stooping to pick them up. Pseudo-narcotism is often very intense when the m. flow is either very painful, deficient, or completely absent. I have known intense pseudo-narcotism, resulting from amenorrhœa, mistaken for an idiopathic affection of the head in a girl of 21. Her head was shaven, and she was bled and salivated, to the ruin of her constitution. N. G., at m. periods, could almost sleep while walking, and once remained 16 hours in a state of

stupor, from which she awoke quite well. K. R., at m. periods, would remain for hours in what she called her "quiet fit," a state of self-absorption and total inactivity of the m. function, unaccompanied by hysterical phenomena, or by convulsions. Such examples of pseudo-narcotism are fortunately rare, for they present the extreme of what may frequently be observed. The ordinary symptoms are, a great tendency to sleep, an uneasy sensation of weight in the head, a feeling as if a cloud or a cobweb required to be brushed from the brain, disinclination for any exertion, a diminution in the memory and in the powers of the mind. But whether slight or intense, the symptoms indicate different degrees of the same cerebral affection which I have described in the patient's own words. They represent the diminished degree of that hysterical coma, in which, says Pomme, some would have been buried alive had he not interposed. A high degree of pseudo-narcotism is sometimes the immediate consequence of connexion. This was always the case in a patient of mine during the first year of marriage. Sometimes she would recover from it in half-an-hour or an hour, sometimes the morbid would merge into the natural sleep, being followed by headache and prostration of strength during the following day. During pregnancy, the milder forms of pseudo-narcotism are frequent. The heaviness of head, the dulness of intellect, the giddiness, the tendency to fall, which are often erroneously considered symptoms of plethora, and used formerly to be treated by venesection. S. C. always knew herself to be pregnant by feeling heavy in the head, giddy, and by very sleepy sensations, which increased as she increased in size. In P. N. there was no pseudo-narcotism at the m. epochs, but much during pregnancy. The milder forms of pseudo-narcotism are amongst the symptoms of over-lactation.

Physiognomists will be struck by the appearance women frequently present at this period, their uncertain step and tottering gait, their vacancy of feature, the drowsy or drunken

expression of the eyes, and the efforts they make to recover their oppressed intellects when aroused by a question. When asked what they feel, they complain of "heaviness in the head," "a stupid feeling," "a lump in the head," "a stupid headache," "a numbness in the head, not pain," of "feeling silly," "stunned," and "the head like a dead lump." Some talk of "an impulse to fall forward," they "are often giddy even in bed." Others complain of "senselessness," of "feeling lost and bewildered," "of a temporary loss of wits," "of the fear of going mad."

At cessation, the temporary loss of memory is sometimes a most distressing symptom. Patients forget where they have put keys or things they are in the habit of using, a few minutes after putting them away. "I write everything down, or I should forget it," says one patient; and another, "I am obliged to stop and ask myself if I am doing what is right." One was so forgetful that she habitually made one of her children remind her. Some forget their way home and their names, as Thucydides relates of some of the survivors of the plague at Athens. Drowsiness at the c. of life is very much complained of; patients say they feel so "sleepy and dreamy-like," "heavy for sleep, but without pain," "can sleep anywhere," "can hardly keep the eyelids open," and are "so sleepy they could drop off their chairs." In a few cases, however, I have noted *sleeplessness*, as in M. C., who says, that her head feels so funny when the time for the m. period comes round, that she cannot sleep for 3 or 4 days. Some patients feel as if they had taken too much, as if something had got into their head; they are accused of being tipsy, when holding by the rails they pass in the streets; they have been turned off as drunk, or at least are not allowed to open the door to visitors by a master anxious to save his own and his servant's reputation. Pseudo-narcotism is most frequent and severe at the c. of life, while hysteria is rare, but it may alternate with hysteria or cardialgia, as in M. J., who, at this

epoch, suffered severely from dull pains in the head, on the subsidence of which she could sleep anywhere ; but paroxysms of gnawing pain, without sickness or dyspepsia, were her next annoyance. The nervous system of some women is so sensitive to the disturbing influence of the ovaria, that they have begun to be pseudo-narcotized at 8, and this has continued, more or less, until after cessation, when it abated. In advanced life nervous symptoms become less frequent, less intense ; should the contrary occur, it denotes a tendency to insanity, as in A. H., who ceased 15 years ago, but who is so sleepy she seldom rises before 5 P.M. I have hitherto kept the results of my own observation clear from what stands on record ; but lest it should appear that I have been too much struck by exceptional cases, I shall now show that esteemed authorities have met with cases similar to mine. They have not, it is true, drawn attention to the minor degrees of pseudo-narcotism, being satisfied to consider them symptoms of hysteria, but they have noted the coincidence of prolonged sleep or coma with amenorrhœa, pregnancy, lactation, and cessation. Dr. Sandras, of Paris, gives instances of its occurrence in both married and unmarried chlorotics. Dr. Villartay de Vitré has made known—*Union Médicale*, tom. V.—a curious case of lethargy occurring regularly every month in a girl suffering from amenorrhœa, the attack lasting 73 hours ; the lethargic state disappearing when the m. flow was restored. Dr. Copland notices coma as a symptom of severe hysteria in plethoric subjects and in pregnancy ; and he enumerates, amongst its other causes, the suppression of the m. and of the lochial flow. Montfaucon states, that some cases of hysteria stand on record where the principal symptom was continued sleep, lasting for several days, and only interrupted to take food. Pomme, who had a large practice in nervous disorders, makes the following remark :—"L'hystérie est quelquefois accompagnée par une sorte de sommeil profond, qui prive les malades de tous sentimens. Elles perdent quelquefois connaissance

aussi subitement que dans l'apoplexie, ce qui en a impose plus d'une fois à ceux qui négligent d'examiner alors l'état de la mâchoire, qui est en convulsion dans l'accès hystérique." Tissot, and those who have written on onanism, relate that some of those addicted to it do not sleep at all, while others are almost always in a state of stupor. Mr. A. Hunter—*Annals of Medicine*, 1799—Mr. Blake, and Dr. Montgomery have cited cases where pregnancy was accompanied by very great drowsiness; and in Dr. Montgomery's case the patient's memory during the whole time of her pregnancy was a perfect void. Dr. Reid relates the case of a woman who was always able to judge pretty correctly of the time of conception by a peculiar sensation of drowsiness, attended by sickness, with which she was then affected. J. Frank has known pregnant women to sleep 18 out of the 24 hours, and he remarks that some women can distinguish fruitful connexion by symptoms which seem to imply a narcotic influence in the spermatic fluid. Baudeloque mentions the fact of women about to be taken with fits of eclampsia being thought drunk by the unexperienced; and although this disease may appear without prodroma, still heats and flushes, giddiness and bewilderment, are often its precursory symptoms. Soporosis affections have been noticed at the c. of life by Chambon, and Tissot says, "I have seen one of the most reasonable and witty women I ever knew pass 2 years of her life at the cessation of menstruation in a constant dream of a calm and gay character like her own habitual disposition. She was at the same time so troubled with the fidgets, that she could only remain sitting for 10 minutes at a time. If she persisted in doing so longer her sufferings were intense. Her nights were often sleepless, and remaining in bed was painful to her."

I cannot better conclude these citations than by a case, related by Pomme, of periodical pseudo-narcotism in a young lady.

CASE 47.—*Successive fits of coma at m. periods.*—

Mdlle. —, aged 18, sanguine and nervous, was suddenly affected with a lethargic drowsiness when the m. flow should have come on, which symptom was alleviated by bleeding. At the following monthly period the drowsiness came again, but with greater intensity, and bleeding was again resorted to, but it failed to relieve her, so was not tried at the third and following m. periods, which were marked by the same lethargic state, instead of the m. discharge. The patient was left to nature. The drowsiness was followed by hysterical delirium, she became violent, and refused all food for 17 days. Pomme put her by force into a tepid bath, and after remaining in it 12 hours, she quieted down, and took food. For 2 months she stopped daily 8 hours in the bath, cold applications being made to the head; the delirium then disappeared, and the m. flow came.

The fact of morbid sleep being so frequent a symptom of the disturbed performance of the reproductive functions, tempts me to say one word on sleep as a physiological phenomenon—a mysterious subject, the full comprehension of which will, perhaps, never be revealed to us.

Physiologists assert that sleep depends on cerebral congestion; perhaps it would be better to own our ignorance of what may be the peculiar condition of the cerebral pulp in sleep; but as it is a symptom of all the phases of the generative function morbidly performed, or in other words, as sleep is often produced by the morbid action of the ganglionic nervous system on the brain, it is fair to ask, has this nervous system nothing to do with the production of our daily sleep? From the preceding facts, I merely wish to infer, that a good theory of sleep should take into consideration the influence of the ganglionic nervous system in its production; and without attaching too much importance to a singular case, it may be mentioned that, at the great hospital at Vienna, a man was to be seen, for many years, who passed all his time in sleeping. J. Frank saw him in 1824. When his body was

opened, the only unusual appearance was a considerable hypertrophy of the solar plexus, and of the other divisions of the great sympathetic.

I said that the singular cerebral condition described by me has no name, but is confounded with hysteria, with which it has nothing in common, or with coma, a disease of rare occurrence, which may be the result of some other affections. I have, therefore, given it a name, because "the novelty of words is justifiable when they serve to illustrate the nature of things." Sir H. Holland has observed that, the difficulty of getting a correct nomenclature for morbid sensations, applies particularly to the cerebral. "Nervous stupor," or "spontaneous narcotism," would be good terms, but as the symptoms are similar to the gentle or powerful effects of narcotic poisons on the brain, I have applied to one group of cerebral symptoms the term *Pseudo-narcotism*, thus graphically expressing the fact, without prejudging the question.

HYSTERIA.—This term, like ophthalmia and leucorrhœa, may be useful in general conversation, but medical writers should be careful how they use it without clearly explaining their meaning. When Dubois d'Amiens, Vigaroux, Béclard, Gardanne, and B. de Boismont say, women are not subject to hysteria at the c. of life, and F. Hoffman, Pujol, and Meissner say that they are, what do they mean? Do they mean that they are not subject to globus hystericus, and the minor symptoms of hysteria, or that they are not subject to hysterical fits? I have pointed out the utility of distinguishing:—

1. **THE HYSTERICAL DIATHESIS OR HYSTERICISM.**—There are uneasy sensations in the abdomen, at the epigastric region, and in the throat, followed by instinctive efforts to gulp down emotion; uncalled-for lowness of spirits; involuntary tears, or uncalled-for high spirits and laughter; with or without change in the moral character.

2. **HYSTERICAL FITS.**—When, in addition to some of these

hysterical symptoms, there are fits characterised by the partial loss of cerebral power, and by convulsive action.

3. HYSTERICAL APOPLEXY.—When, in addition to other hysterical symptoms, there is a partial or a complete loss of cerebral power, unexplained by cerebral hæmorrhage. Hysterical apoplexy is a rare disease, and unnoticed at the c. of life.

Thus distinguishing what is usually confounded, I think I can decide the question relating to the frequency of hysteria at cessation ; for I found that, out of my 500 cases, 146 who had suffered more or less from globus hystericus and the minor symptoms of hysteria still continued to suffer from them at the c. of life ; and that 17 had globus hystericus, that 4 had repeated laughing and crying fits, and that 3 had hysterical fits, for the first time after cessation. In several of these cases, globus hystericus was so severe, as to make the patient jump up in bed for fear of being strangled. Landouzy gives a table showing that, out of 351 cases of hysterical fits, 25 only occurred after the 40th year, and that they are very rare before puberty ; so that while from 14 to 45 the influence of the ovaria is shown by a larger proportion of hysterical fits, and by less pseudo-narcotism ; before and after those periods the contrary is the case. Gendrin says, that the ecstatic form of hysteria is sometimes met with after cessation. With regard to the effects of the social position, hysterical symptoms are much less common among the poor, and they occur most frequently when the nervous system of woman is wrought up to an artificial state by luxurious living, by overworking the mental faculties, and still more by the over-development of emotion. With regard to the influence of temperament in producing hysterical phenomena, I have met with them most frequently in patients of a sanguine temperament, in whom the least disturbance of the periodical function has, through life, often brought on this disorder ;

whereas in women of a nervous temperament, hysteria often diminishes in proportion as the activity of the reproductive organs becomes less and less, ceasing entirely with the subsidence of their action. Landouzy has shown that, in the vast majority of cases, hysterical convulsions were ushered in by pain or strange sensations in the hypogastric and ovarian regions, pains which induce the suffocating feelings felt at the pit of the stomach, and then the globus hystericus. Dr. Copland has known the convulsive attack to be preceded by leipothymia, and I have often been struck by the alternations of cardialgia with globus hystericus or other minor hysterical symptoms; globus hystericus subsiding, for instance, when a paroxysm of cardialgia appeared.

CASE 48.—*Hysteria caused by cessation*.—Lucy P., tall, thin, with brown hair, grey eyes, and a chlorotic complexion, was 49 when she came to the Farringdon Dispensary, in Oct., 1854. She had always enjoyed good health, and married at 18; the m. flow first appearing the day after her wedding. She had several children, the last at 33, and from that time until she was 44, the flow continued regular. It then dodged her for 3 years. For 6 months it came regularly every fortnight, then every 2, 3, or 5 months. Several times, when she had been long without the m. flow, “a gush of blood would come from the mouth or ears, and she was obliged to go to bed.” She was much troubled with faintness, flushes, sweats, abdominal pains, piles, which bled occasionally, pseudo-narcotism, and for the first time in her life, hysteria. She once had a convulsive fit, and very frequently crying fits, and the sensation of a lump in the throat. After suffering in this way for 3 years, the m. flow ceased altogether 2 years ago, and her health grew worse. She has become weak, and her complexion turned from ruddy to sallow; she is laid up for weeks with bilious attacks; she brings up bile, and her bowels are either relaxed or confined. She is much troubled with headache, with pseudo-narcotism, with nervousness, and

with the hysterical symptoms already detailed. This patient had always enjoyed good health until the dodging-time began; from that time for 5 years she had never been well, but I was able to restore her to health in about 6 months. She first took 4 grs. of blue pill, and 2 of ext. of hyoscyamus, every other night; the comp. camph. mixture before meals, and a drachm of carbonate of soda in a mouthful of water after meals. After 3 weeks these medicines were discontinued, and 5 grs. of citrate of iron were given in an effervescing draught after meals twice a-day, and 10 grs. of Dover's powder every other night. The bowels were kept open by an occasional dose of sulphur. The comp. camph. mixture was taken when the patient was unusually nervous.

E. W., aged 50, the sister of a very nervous man, and herself very nervous, has not menstruated for the last 16 months, but has been troubled by bleeding piles. She awakes every morning with pain in the lower part of the abdomen. This is relieved by pressure, and by lying on the stomach; but only vanishes on her throwing up a large quantity of wind, which often gives her the appearance of being 5 months pregnant. There are no signs of dyspepsia about this patient. Under the influence of mental annoyance, I have often seen a copious extrication of gas occur in healthy persons of both sexes, the wind finding vent in repeated eructations.

EPILEPSY.—This is most frequently determined by fright and intense misery, but it sometimes appears in connexion with first menstruation. After a certain number of years the complaint usually wears itself out, but it occasionally returns at the c. of life. I have seen 4 such instances, and in another, the patient first suffered from epileptic fits during lactation; she had 7 children, but the fits only came on during 4 lactations, and lately at the c. of life. She could assign no cause for their appearing at some lactations and not at others; but she had kept the temperance pledge 4 years previous to the epileptic fits at cessation. Drs. Tyler

Smith and B. de Boismont have seen several cases wherein hysterical and epileptoid attacks only came on at first menstruation, at the decline of life, and at each m. period, the nervous symptoms completely disappearing on the cessation of the m. flow. Doctor Radcliffe, whose work on *Epilepsy and its kindred Affections* has thrown much light on a most abstruse subject, informs me, that one of his patients had repeated epileptic fits at puberty, which induced medical men to advise her remaining single. She, however, married, had children, and did not suffer again from the epileptic fits until the c. of life. In 2 of my cases, epilepsy occurred without any other cause than the c. of life; and Moreau notes this epoch as the only cause of 9 out of 529 cases of epilepsy occurring in women. Besides the well-known anomalous sensations arising from various parts of the body, I have met with one patient in whom the attacks were brought on by a fixed and intense ovarian pain, the result of subacute ovaritis. Pressure on the ovarian region often brought on attacks, and I myself thus caused a severe one. Dr. Copland has often seen epileptic fits preceded by leipothymia, the pulse retaining its usual strength, which confirms my belief that the starting-point of epilepsy is as much to be sought for in the ganglionic as in the cerebral centre of nervous power. Before entering on the study of insanity, I give two singular instances of cerebral disease at the c. of life.

CASE 49.—*Short and sudden fits of impossibility of speaking after cessation.*—Mary H., a tall, healthy-looking woman, with brown hair, and hazel eyes, is a harness-maker's wife, in good circumstances, and was 50 when she consulted me at the Paddington Dispensary, December 12, 1851. The m. flow appeared at 10, and came regularly with little disturbance until she married at 21. She had 4 children, the last at 39, and was regular until 47, when cessation took place, after the m. flow had dodged her for 4 months. Some days after the last m. flow, and without any known cause, while she was

hanging out clothes in the garden, she felt giddy and fell down, remaining insensible for 10 minutes. The fit was repeated once a week, then every fortnight, afterwards with an interval of 6 weeks, when she became free from them for 6 months, but felt more nervous than usual; and about 2 years ago, when in apparent good health, while talking to her husband, she was all at once deprived of speech. She was perfectly conscious, knew what she wished to say, but could not utter the words. She had no pain, no choking sensations, she did not stammer nor stutter, she had no headache, but felt giddy even when lying down. For 2 years this fit came every day, and if it missed the day, it would come at night on waking after her first sleep. She consulted me because the fits have, of late, come 2 or 3 times a day. She is now very nervous, frightened at the dark, and at everything, and she complains of headache. After well opening the bowels on December 12th, with the c. colo. and calomel pills, I gave my comp. camph. mixt. before, and the carb. of soda after meals. This was continued up to January 26th, and the number of fits of speechlessness diminished from 4 to 1 a day, and were of shorter duration. In addition to other measures, I then ordered 8 grs. of ox. of zinc, and 2 grs. of ext. of hyoscyamus to be taken in pills every night. This was continued until March 15th, when the patient was discharged, still complaining of being once a day utterly unable to give utterance to her thoughts, but the speechlessness is of short duration. She was in good circumstances, had a good husband, seemed in good health, and the c. of life could alone account for her fits, which, in the first place, resembled the little fits of epilepsy, and then assumed a more uncommon character.

CASE 50.—*Fits and eruption of the face caused by the c. of life.*—Mary F., a woman of the average size, with grey eyes, brown hair, and a florid complexion, came to the Paddington Dispensary, February 16th, 1849. She was then 48. The m. flow came at 10, and continued regular, sometimes

too abundant, but without other disturbance. She married at 17, had 3 children, the last at 34; since then she has been left a widow, and the flow remained regular until the last 2 years, when it began to dodge her. With the exception of giddiness during the previous year, she had enjoyed uninterrupted good health up to this period, but now flooding, at irregular periods, with great abdominal pain, lays her up for 3 months at a time; there is no uterine disease, but she is troubled with obstinate constipation, faintness, flushes, and sweats. She suffers from pain at the top of the head, which is worse when she lies down; without sick headache or hysterical symptoms, she always feels giddy, stupid, sleepless, heavy, and "never as she ought to feel." She has, moreover, nervous fits. Two years ago, when the m. flow began to be irregular, she had, for the first time in her life, a cutaneous disease, attacking both arms and face. The arms soon got well, but the face was sometimes better and sometimes worse. Now the cheeks are hot, livid, hard, and covered with flaky scales, a quiescent state which has lasted for 3 months, but the skin often blisters and distils a watery or a gummy substance every month or 6 weeks. Since this affection of the face has appeared, the patient has been subject to fits, which come on suddenly from fright, exertion, or without cause. Talking to me has often brought one on. They come 3 or 4 times a day at uncertain periods. Her teeth chatter, she becomes unconscious, and this, at first, lasted only for a few minutes, but now often for an hour, when she becomes violent, and tears everything she can lay hold of, obliging her always to have some one to take care of her. The fits are worse and more frequent when the eruption fades, and the brain always feels relieved when the face is most fiery. February 16th.—I ordered 2 com. col. and calomel pills to be taken every 2nd night, and 1 oz. of castor oil the following morning; a scruple of sulphur and borax twice a day; one drachm of carbonate of soda after each meal. The comp. camph. mixt., hot

foot-baths every night, 10 grs. of Dover's powder every night, were afterwards given, and March 8th, 5 leeches were placed behind each ear, for the patient could not be persuaded to be bled. March 17th.—The leeches did no good, the patient being no better than when she first came. In addition to the usual treatment, the face, which is inflaming, is to be fomented with warm milk and water. April 5th.—Abdominal pains were much complained of, and required enemata, with 30 drops of Battley's solution twice a day; without pain, however, or any red discharge, she would frequently pass "large clean clots of blood." A blister once benefited her, so I ordered another, which was useless. June 14th.—She has just recovered from a flooding, which had not occurred for the previous 8 months. This has relieved the abdominal pains, but the head is as bad as ever, the nervous fits as frequent, and the face discharges much gum-like matter every second day. I ordered a blister to be kept open on each arm, but the patient being too ill to come to the Dispensary, and being myself laid up about this time, I lost sight of her. The life of no woman ever presented a more marked contrast. Perfect health up to the c. of life, after which constant illness. The organic changes set on foot by the c. of life caused all the patient's sufferings. The treatment of such a case could not be well followed by a Dispensary patient. She would not be bled, although repeated bleeding was requisite. Daily tepid baths, prolonged for 3 or 4 hours, would have been very serviceable, but could not be taken. It would have been injudicious to remove the cutaneous eruption before an abundant flow of suppuration had been permanently obtained from blisters or issues, or I would have attempted it.

INSANITY.—Some authors assert that insanity is more common to women than to men; others, that this frequency depends on the shock felt in the nervous system at puberty and at cessation. The first assertion is doubtful, and the next an exaggeration; for, on consulting the Registrar-

General's Reports, it will be found that deaths from insanity are most frequent in women from 20 to 40, or while the reproductive organs are endowed with their greatest activity; results in accordance with the statistics of Haslam, Pinel, Esquirol, and Fodéré. From 40 to 60, when men are most actively engaged, and hope fails as well as physical strength, many more men than women die insane. From 60 to 80, when the sexes most resemble each other, insanity affects them equally. A still better way of ascertaining the liability to insanity at the c. of life, is to take the admissions of a large lunatic asylum. The following table, for which I am indebted to the kindness of Dr. Hood, shows the ages of women admitted at Bethlem Hospital, from January, 1845, to December, 1853.

TABLE XXIX.

Relative frequency of Insanity at different Periods.

Period of Life.	No. of Cases.	Period of Life.	No. of Cases.
Under 15 years.	9	40 to 45 years.	162
15 to 20 "	61	45 " 50 "	153
20 " 25 "	216	50 " 55 "	122
25 " 30 "	223	55 " 60 "	57
30 " 35 "	217	60 " 65 "	55
35 " 40 "	218	65 " 70 "	27

This shows that, although the time at which the c. of life generally appears is not most prone to insanity, still 437 out of 1320 became insane from 40 to 55, whilst after that age the number suddenly diminished. Dr. Davey, of Northwoods, who has also paid great attention to the subject, informs me, that about one in every six insane women have had a first attack between 36 and 40, and that the chances of insanity diminish from 40 to 55. The effects of the puerperal state and lactation in producing insanity explain why it is most frequent in women before the 40th year; but the table heading this chapter shows that, out of 500 women, 16 were met with in whom the mental or moral faculties

were severely compromised by the c. of life. B. de Boismont received into his asylum in one year 8 patients, in whom insanity could only be accounted for by this cause. Dr. Forbes Winslow, whose extensive practice makes him a competent judge, assures me, that he has frequently seen insanity brought on by this epoch; and Dr. Wood, of Kensington House, confirms this assertion. If headache, pseudo-narcotism, hysteria, and epilepsy be caused by the c. of life, it would, indeed, be strange if it should not likewise produce insanity. If Esquirol be right in establishing that derangements of menstruation form one-sixth of the physical causes of insanity, and B. de Boismont in professing the same opinion, and in saying that the m. epochs are always "*un temps orageux*" even for insane women who regularly menstruate, it would indeed be singular if the c. of life did not sometimes produce insanity. If it be caused by puberty—a fact already recorded by Hippocrates—it would be astonishing if it were not sometimes the result of the c. of life. Every well-authenticated case of insanity occurring at this period represents many similar instances now in asylums. It makes one tremble for the fate of a large number of women, and is a sufficient reason for the paramount importance given to this portion of my work.

FORMS OF INSANITY.—After mentioning—I. Delirium, which is an acute aberration of the mental faculties, I shall pass in review, II. Mania; III. Hypochondriasis, or Melancholia; and IV. Irrepressible impulses, and the perversion of moral instincts.

I. DELIRIUM.—B. de Boismont, who has seen 4 cases of delirium at puberty, has likewise met with transitory attacks of it at the c. of life. Sometimes the delirium is general, or it may run exclusively on one subject, as Dusourd has stated; and it is a matter of reflection for the psychologist, that while, in virtuous women, ideas thus combined, without the guidance of volition, may take a lascivious turn, in depraved characters,

if Parent Duchatel is to be believed, delirium runs on ordinary matters, and never on erotic subjects. I have met with 3 cases of delirium at the c. of life. The 2 following are the most interesting :—

CASE 51.—*Delirium at cessation.*—Mary S., of the average size, but thin, with a sallow complexion, dark hair, and hazel eyes, was 47 when, in October, 1852, she came to the Farringdon Dispensary. The m. flow appeared at 13, and she had always been particularly free from morbid symptoms. Though twice married, she never conceived. About 15 months ago the m. flow became irregular, and she was much troubled with headache and abdominal pains. One night she went to bed as usual, and awoke delirious. She ran down the street in her night-gown, required 3 men to hold her, was taken to the Bristol Infirmary, and in 3 days, the m. flow having come on, her senses returned. Several abscesses appeared in both arm-pits, some broke, others were lanced, and, when better, she came to London, and applied at the Dispensary for relief from headache, nervousness, and lightness of head. There had been no m. flow for the last 10 months. I gave her a scruple of Dover's powder every night, and the comp. camph. mixture, which cured the patient. The singularity of this case is, that no nervous symptoms presented themselves until the attack of delirium. The patient was in tolerable circumstances, had a kind husband, and nothing to trouble her, so I cannot attribute the delirium to anything but the c. of life.

CASE 52.—*Delirium caused by cessation.*—Mary L., a tall, stout woman, with brown hair, light grey eyes, and a sanguine temperament, was 36 when she came to the Paddington Dispensary, October 31st, 1850. The m. flow appeared at 12, and continued regular, abundant, and without much disturbance. She had none of the usual head-symptoms of menstruation, but, from her 20th year, was subject to epileptoid fits. She married at 22, had 3 children, pregnancy

always warding off the fits. The m. flow was regular until her 32nd year, when, a few days after its last appearance, without any known cause, she became raving mad, and was removed to the Marylebone Infirmary. After a few weeks she was well enough to leave, and, though her health was not restored, she has never had a similar attack. She is very nervous, giddy, and bewildered; but for the last year has had no epileptoid fits. Ever since cessation the breasts have been very painful, and the nipples frequently exude a milky-looking or glutinous fluid. Treatment similar to that employed in the preceding case relieved the patient. She was 40 when I last saw her, pretty well, but the m. flow had not returned. If the sudden stoppage produced delirium in this case without any appreciable cause, it must be remembered that the patient's nervous system was tainted with epilepsy, and that her sister was also epileptic.

II. MANIA.—Drs. Dusourd and T. Smith have noticed mania at the c. of life. Before giving a curious instance, I shall mention that B. de Boismont has seen a case of mild dementia transformed by this epoch into furious mania, which lasted long. On the contrary, when cessation occurs in maniacs, it generally causes the disease to subside into dementia, and a sudden calm follows a state of furious agitation. Ferrus, Dubuisson, B. de Boismont, and others have noticed this singular effect, which reminds me of a mode of curing mania, ascribed to the priests of Cybele. "*Qui ante castrationem maniacy erant, sanam aliquanto mentem ab illo recuperant.*"

CASE 53.—*Mania caused by cessation.*—Alice B., a bilious-looking woman, with gipsy features, dark hair, grey eyes, tall and slender, was 44 when she consulted me at the Farringdon Dispensary, Sept. 10th, 1849. The m. flow appeared at 13; was abundant every 2 or 3 weeks, with a good deal of headache, sick headache, and pseudo-narcotism. Married at 19, had several children, the last at 36, and was regular until she had

a violent flooding at 42, since which time there has been no m. flow. After this sudden cessation, the abdomen swelled, was very painful, and without serious disease she dwindled down to a skeleton. She was improving, when, about 2 months after the flooding, as she was sitting by the fire, she felt a sudden flush in the head, face, and arms; she could not speak, and became unconscious. For 3 months she was very violent, scarcely slept, eat enormously, and wanted what she could not afford. One night she said in a collected manner to her husband, "I will go to bed." She did so; slept soundly; was much more rational when she awoke, and gradually improved, without any other medicine than an occasional purgative. She never had a return of mania, but it has left her nervous, light-headed, and she forgets where she puts things. She came to the Dispensary for an inguinal abscess, for flushes, and drenching perspirations, and frequently returned; for when the nervous symptoms became too troublesome, they were always subdued by scruple doses of Dover's powder, alkalis, purgatives, and tepid baths. The particulars of this case were confirmed by the patient's husband. Both state that the attack of mania came without any known cause; I therefore consider it a result of the organic changes evidently determined by the sudden cessation in a nervous woman, of a flow accustomed to be abundant every 2 or 3 weeks.

CASE 54.—*Insanity occurring at the c. of life.*—Mr. Hare, of Langham-place, consulted me in 1851 for a short, thin, nervous lady, with hair partly grey. She said she was 46, but looked much older, had an anxious appearance, and always kept her eyes closed. Married, and a widow, without family. She thinks some medicines, taken 8 months previously, had stopped the m. flow, as it had not since appeared. The abdomen was swollen, the distension being chiefly tympanitic, and though complaining bitterly of it, and keeping her hands constantly upon it, would not let it be called painful, but said

it was a nervous, irritable weakness of the abdomen. The uterus was not enlarged; its orifice virgin, without any diseased appearance, and touching it caused great pain, and gave rise to a storm of eructations. These abdominal symptoms had abated when I saw the patient 6 months afterwards, but she rambled fearfully about the persecutions of friends and the abominable conduct of the medical men who had been consulted about her case, and who considered her insane.

III. HYPOCHONDRIASIS AND MELANCHOLIA.—These two degrees of the same mental condition are often met with at the c. of life, particularly hypochondriasis, which seems to be an exaggeration of some of the symptoms of pseudo-narcotism. I have drawn attention to the haziness of intellect, and to the state of temporary self-absorption into which women so often fall; to their love of solitude, their distrust of friends, their exaggerated estimation of trifles; and what is this but a temporary state of hypochondriasis, susceptible of becoming permanent at the c. of life? This is why Gardanne says he has often observed hypochondriasis at cessation; why Dubois d'Amiens says that it is frequent at that period; and they correctly remark that it is accompanied by oppression, epigastric suffocation, sensations of strangulation and neuralgia. Chambon has likewise noticed the frequency of hypochondriasis at this period, and thinks the bilious are most liable to it. Sir H. Halford has drawn from nature the following picture:—"She sits in an indolent posture, looks gloomy, hardly speaks at all, and we learn from her attendants that she lives under the impression that some fancied evil is about to befall her. She is suspicious, undecided in all her movements, and manifests symptoms which differ in degree only from melancholy mania." In a paper read before the members of the Provincial Medical Association, Dr. Conolly mentions having seen the melancholia of cessation last 2 years; but he must have met with some exceptional cases, for he

observes, that they were the beginning of the incurable decline of bodily as well as of mental health. With regard to the causes of this state : it may be induced by abdominal plethora and by ovarian misrule, but these physical causes would not produce melancholia without some cerebral predisposition and the concurrence of psychological causes. Peace and tranquillity may be the lot of those who have passed the crisis ; but it is easy to understand how the life of women in the transition period may be replete with anguish. Supposing health not undermined by the coming change, how can a sensitive mind and a loving nature remain undisturbed when all is changing around her, and one by one snap the cords which anchored her to life ? At 50, parents may have been gathered to the dust, children may have deserted the paternal roof. The flame of vitality cannot die without forebodings of decay, and there springs up a doubt never before harboured—a doubt whether, with faded charms and failing energy, she can possibly retain possession of her husband's affection, and she looks out for proofs of unkindness where none were meant. Because she has no longer the strength of youth, she tries to convince herself she is useless, and may become first suspicious and then revengeful. If unmarried, is it wonderful that this peremptory notice to put aside all long-entertained visions of fancied bliss should wound to the quick a sensitive nature ? The future becomes now a desert void, and despondency shows it to be as boundless as the sands I have often watched at sunset from my desert tent. In the desert of her thoughts no refreshing fountain is heard to gush forth the melodious songs of hope ; no palm-tree promises relief against a scorching sun. She peoples the void with imaginary evils ; hears strange voices where all is silent ; feels awful forebodings, though nature smiles around her ; and thus hopeless and full of fear she will sit alone for weeks and months in the darkened room of some gloomy dwelling, without any other enjoyment than

solitude, or that of brooding over unbegotten evils, with mental faculties now paralysed, or at times revived by conscience reproaching the poor sufferer with her inactivity, her sloth, and her want of faith in that God who deserts none of his children.

CASE 55.—*Apathy and sudden change of previous habits at c. of life.*—This incapability of, or rather dislike to, exertion,—this aversion to the mental exercise of *willing*, is characteristic of the female mind when disturbed by cessation. I have been often consulted by a lady gifted with high powers of intellect, blessed with connexions, personal appearance, and with a mind so highly cultivated that she might have taken the lead in society, had she not shrunk from its pleasures and duties so soon as she first felt the influence of the c. of life. Cessation took place 5 years ago, and ever since she has severed herself from connexions, shut her door to numerous friends, and lived in seclusion. She rises at 4 P.M. and goes to bed between 4 and 5 A.M., so that, in winter, she sees as little of the sunshine as the Laplander. She says she cannot do otherwise, though she knows that her mode of life forces her sons to seek elsewhere for society they cannot find at home. A doting mother, and still she will not make any alteration. To expostulation or joking, she replies, “You do not understand me;” the usual reply of those who cannot justify themselves. This want of energy, which has been so unfortunate for others, is no less detrimental to her own happiness; for though annoyed at her distressingly nervous condition, she has not the courage to follow any plan of treatment. I said I had been often consulted, but I do not believe my advice has been often followed, and few of the host of medical men this lady has consulted have been more fortunate. But what could medicine do in such a case without judicious management? Her present state depends upon her having had no strong guiding influence when it was most wanted. Evidently,

therefore, to look for improvement while her actions have no other rule than caprice or apathy, is like placing an infant at the helm of a three-decker, and expecting it to steer safely into port. In this lady's case, a widow, with children unable to direct her, the greatest chance of recovery would be to enter the family of some judicious medical man, under a promise to stop 3 months, and implicitly to obey all directions. Thus would the patient, in spite of her lamentations and prophecies, be gradually brought back to habitual hours; thus could the medical man teach her the long-lost art of taking exercise, sometimes mingling it with distractions, at others carrying it to fatigue; and travelling might complete the cure.

CASE 56.—*Melancholia, with suicidal tendencies, caused by cessation.*—Mary W., a tall athletic woman, with a pale face, iron-grey hair, a whimpering tone of voice, and apparently always ready to cry, was 45 when she came to the Farringdon Dispensary in November, 1855. She was the wife of a publican, and in good circumstances. The m. flow appeared at 13, and came regularly, even during lactation, for she had borne several children, but it ceased suddenly 8 months before I saw her. Two months after cessation, she passed a large quantity of blood by the bowels, and for the last 5 months, every month or fortnight she has had several loose motions containing blood. The abdomen was also very painful and enlarged, so much so that she was thought pregnant by a high obstetric authority. For the last few months she suffered much from dry flushes during the day, and from "her skin stinging and perspiring" during the night. "All this," says the patient, "I could easily bear, were it not for my nervous state." She complains of being all in a tremble, she is sleepless all night, and powerless all day, sometimes dozing as if intoxicated, and waking up to thank God she is still in her senses; at others, she sits alone, doleful and disconsolate, ashamed of herself for being so lazy, and still unable to do

anything, or forgetful of what she ought to do. She says, that "when she sits thinking, she feels numbness and a pricking sensation in her limbs." She often despairs of Providence, and is much afflicted with suicidal thoughts. I first prescribed my usual mixture before meals, carbonate of soda after, 3 grs. of blue pill, with 2 of ext. of hyos. every other night, 10 of Dover's powder every night, a large belladonna plaster at the pit of the stomach, and vaginal injections with a solution of acetate of lead. February, 1856.—To relieve the abdominal pains, she took 6 pills, each containing 2 grs. of blue pill, and a quarter of a gr. of ext. of opium. March 27th.—The patient was in every way better, but the motions were again bloody; the same treatment was continued, and on April 16th she stated that she was less subject to gloomy fits, and to suicidal tendencies, though pseudo-narcotism was intense, the abdomen much distended by wind, and the tongue furred. An increased amount of flushes and perspirations coincided with the improvement, and she had grown suddenly stouter, although eating very little. I continued the same treatment, for I could not obtain her consent to have 3 oz. of blood taken from the arm, although I told her she could not be cured without. May 17th.—After 14 months' absence of the m. flow, she passed, after great vaginal pruritus, many large black clots of blood, with skin-like substances, after which she had a watery discharge, and voided about a tea-cupful of blood by the bowels, with sickness, flatulence, and the old symptoms. More blood was passed on the 28th, after a scene with her drunken husband. In addition to other treatment, I ordered a table-spoonful of the following mixture to be taken 3 times a day:—

Hydrochlorate of morphine	1 grain,
Chloric ether	6 drachms,
Distilled water	6 ounces ;

and when this had thoroughly cured the internal pains, she took effervescing draughts 3 times a day. August 13.—She had again become bilious, had passed a little blood in motions, looked 7 months pregnant, but her health and appearance have surprisingly improved, notwithstanding the worry of sick children, and a home ruined by the bankruptcy of an unkind husband. I last saw her in October; she continued in good health, although she had left off the medicines.

CASE 57.—*Melancholia caused by cessation*.—Mrs. L., a thin, nervous-looking lady, with dark hair, and grey eyes, was 59 when she consulted me in December, 1855. The m. flow appeared at 15, and came regularly with but little disturbance. She married at 20, had 6 children, and was regular until the m. flow ceased gradually at 54. Soon after this, without worry or any apparent cause, she became subject to headaches, drowsiness, and for a time both her sight and hearing failed her. She would sit by the fire all day absorbed in transacting strange things with strange people of former times, and often frightened by ghastly faces. At other times, she felt an incontrollable impulse to move about, and to dash her head against the wall, getting up and moving about without a motive, and then sinking down again, to remain immovable for hours. She slept with a light in the room, lest on awaking in darkness, she should throw herself out of the window. At times she had a strong impulse to kill her two grandchildren, and took care never to be left alone with them; but finding the temptation becoming too strong for her to resist, she left an affectionate daughter's comfortable home. She was much troubled off and on with dry flushes, and with the sensation of weight and gnawing at the pit of the stomach. I ordered 10 ounces of blood to be taken from the patient's arm, and, after a brisk purgative, I prescribed a quarter of a grain of acetate of morphine every night for the first 10 days, every other night for the next 10

days, and every third night for the 10 days following. I prevailed on her to stop two hours in a tepid bath, hot water being added when the patient felt chilly. The baths were thus taken for a month. At the end of this time, the patient looked and felt another person. All the symptoms had abated. I then gave 10 grains of Dover's powder every night, my comp. camph. mixture, and ordered a belladonna and an opium plaster to be applied, on alternate weeks, to the pit of the stomach, and a scruple of a powder composed of equal parts of flour of sulphur and of biborate of soda, to be taken twice a day. When this had been taken for a fortnight, the flushes, instead of being dry and burning, were mitigated by gentle perspirations. The treatment was continued for several months with slight interruptions, and a tour to the German spas with a valued friend completed the cure.

IV. UNCONTROLLABLE IMPULSES AND PERVERSION OF MORAL INSTINCTS. — As pseudo-narcotism has been seen gradually sloping into hypochondriasis, so the symptoms of insanity are often those of hysteria, made intense and permanent. Girls, well-behaved until puberty, then become snappish, fretful, uncontrollably peevish, full of deceit and mischief; and is not this a state of miniature insanity? Law has decreed, that to establish a defence on the grounds of insanity, it must be proved that, at the time of committing the offence, the accused did not know that he was doing wrong; whereas medicine teaches, that some are led by an irresistible impulse to deeds which they know perfectly well are criminal—deeds committed without motive, because liberty is warped by an instinctive impulse, which cannot be controlled. Freewill alone is punishable, says medicine; where freewill is not, punishment is barbarity, and the more barbarous if inflicted by the hand of justice. It is so difficult to distinguish the strong temptation, which might have been successfully resisted, from the irresistible impulse, that Judges

are averse to the doctrine of irresistible impulses; they are averse to it, because it is the plea frequently brought forward to save undoubted criminals from the scaffold. Abstract views of punishment also render Judges averse to this doctrine. Baron Bramwell, in summing up on Dove's case, is reported to have said: "Why should punishment be administered at all? It is not inflicted on a man because he has inflicted evil on others, but to hold out an example to deter others from evil. That is the true reason, in my opinion, and the only object of punishment." Assuredly the punishment of criminals has also for its object the appeasing of divine justice, and the atoning to society for mischief done; and, although the inconsiderate admittal of the plea of irresistible impulse, would certainly increase crime by withdrawing that constant check on evil inclinations,—the fear of punishment,—still, rather than the innocent should once suffer undeservedly, it is better that a hundred criminals should escape. However much the plea of irresistible impulse may have been abused, I firmly believe it leads some to the commission of crimes they abhor. I have been consulted by at least 10 women of high or low degree at the c. of life, who bitterly lamented their frequent temptation to commit suicide or murder. Judges, as enlightened as merciful, have admitted the doctrine of uncontrollable impulse in cases of puerperal insanity. If they admit that parturition determines uncontrollable impulses, they must also allow the possible occurrence of the same impulse at all the critical periods of woman's life, during puberty, pregnancy, lactation, the m. periods, and cessation. It is notorious, that the best constituted female mind is susceptible of being totally unhinged by the first impressions of the reproductive apparatus on the nervous system; by the irregular performance of the m. function; by connexion, parturition, and lactation; by some diseases of the ovaries and womb; and, lastly, by the shock

felt on the withdrawal of that ovarian stimulus to which it had been accustomed for 32 years. Such being the case, what is to be the fate of women, who, at the c. of life, unfortunately yield to some ungovernable impulse? Judges will be consistent, and as they shrink from inflicting punishment on mothers who murder their children during a fit of puerperal mania, and as on two occasions* they have permitted juries to return a verdict of "not guilty" for the murder of infants by young women who had habitually suffered from disordered menstruation, they would, I suppose, deal in a similar spirit with crime committed by women at the c. of life, if it could be proved by medical testimony that this period has been a source of mental trouble to one so unfortunate as to steal, to murder, or to commit other crimes. I lay some stress on this subject, because, very lately, when a lady was brought up for stealing some pocket-handkerchiefs, and the mental infirmities determined by the c. of life were pleaded in extenuation of the offence, the jury were divided. The difficulty of dealing with such cases is, that a patient cannot accept the benefits of a humane interpretation of the law, without abiding by the means wisely devised for the prevention of crime by the insane,—seclusion amongst criminal lunatics. Now seclusion may be useful in some cases, but is objectionable, until it has been proved that judicious treatment cannot remove a form of temporary insanity, as yet shallowly rooted in the system. Dr. Reid's† reflections on mental derangement apply forcibly to that occurring at the c. of life. "Lord Chesterfield speaks in one of his humorous essays, of a lady whose reputation was not *lost* but only *mis-*

* *Regina v. Brixey*, Central Criminal Court, June, 1845. The murder of an infant by this woman was proved; but she was acquitted on the plea of her being subject to disordered menstruation.

Amelia G. Snoswell was tried at Maidstone, March 20, 1855, for the same crime, and was acquitted on the same plea.

† Reid's "Essays on Insanity," p. 204.

laid. In like manner, instead of saying a man has lost his senses, we should, in many instances, more correctly say, that they were mislaid. Derangement is not to be confounded with destruction ; we must not mistake a cloud for night, or fancy, because the sun of reason is obscured, that it will never again enliven or illuminate with its beams. There is ground to apprehend that fugitive folly is too often converted into a fixed and settled frenzy, a transient guest into an irremovable tenant of the mind, an occasional aberration of intellect into a confirmed habit of dereliction, by a premature adoption of measures, sometimes necessary, but only so in extreme cases."

I shall briefly notice the most frequent of the ungovernable impulses occurring at the c. of life.

TEMPER, OR UNCONTROLLABLE PEEVISHNESS.—As at puberty, so at the c. of life, temper is perhaps the most frequent of its instinctive impulses. The patient often says, "From mild and kindly disposed, I have become irascible and mischievous ;" or, "I have suddenly become so mischievous, that I am quite afraid of myself." The character of a charming lady, whom I have been so fortunate as to cure, was thus, for a time, completely altered. The m. flow came at 13, and left at 47. During the dodging-time, uterine prolapsus was troublesome, and required a pessary ; at cessation, there was uterine irritation, incontinency of urine, distressing flushes and perspirations. She was low-spirited, melancholy, snappish, quarrelsome ; so uneven-tempered that her servants would not stop long with her ; and so suspicious, that a common-place observation made by her husband, servants, or friends, was interpreted as a conspiracy against her. This condition, after lasting more or less for 2 years, yielded gradually to my usual treatment, and there has been a surprising amendment during the last year. Both at puberty and at cessation this lady became suddenly very stout.

THE IMPULSE FOR SPIRITS—OINOMANIA.—B. de Boismont

has several times seen, in temperate women, a craving for spirits only at the m. epochs, which subsided with the flow, and the same desire has been noticed in pregnant and puerperal patients. Esquirol and H. Roger Collard have each met with women, in good circumstances, who all through life had been temperate, but at the change were suddenly seized with an irresistible desire for brandy, which again became insupportable to them when the critical period was passed. This impulse is akin to the well-known longings of pregnancy, and those who yield to it know they are doing wrong, struggle against it, but are overcome. It is easy to understand how such impulses should be rife at all the periods when the ganglionic nervous system is in a state of perturbation, and when anomalous sensations at the epigastric region indicate morbid action in the ganglionic centre; they should, therefore, be considered less as despicable failings than as complaints admitting of being cured by proper treatment.

IMPULSE TO STEAL.—Drs. Taylor and Marc have known patients who, previous to puberty or to disordered menstruation, were conscientious respecters of the rights of property, but who, though in affluence, would steal, at all risks, at the critical periods of life. Dr. Marc mentions a rich lady who, during pregnancy, could not resist the temptation of stealing a chicken from a cook-shop. I have already alluded to a case of this description occurring at the c. of life, and I believe it to happen oftener than is supposed—though, while yielding to an ungovernable impulse, the sense of acting wrongly is ever present to the mind.

IMPULSE TO MURDER.—This irrepressible impulse has been admitted in English Law Courts, whether it occurs during disordered menstruation, pregnancy, or puerperal mania. I cannot cite any case where this impulse led to lamentable consequences at the c. of life, but some of my patients at this period were constantly troubled with the temptation to

kill their grandchildren, and they feared to dine with them because of the knives. Those who yield to this impulse generally know they do wrong.

IMPULSE TO SELF-MURDER.—Hippocrates relates that self-murder was epidemical among the young women of Miletus. It has occurred during m. irregularities, and B. de Boismont has observed it at puberty and at the c. of life. From his extensive statistical researches respecting suicide in France, it appears that for one woman three men commit suicide; and, with respect to the age at which this crime is most frequent, he found that, out of 5960 suicides committed by women in the whole of France, the greatest number, 1111, took place from 40 to 50; 1026 occurred from 50 to 60, and 992 from 20 to 30. It appears, however, that the capitals of some countries are exceptions to the rule, for the same observer found that, out of 1380 suicides committed by women in Paris, the largest number, 343, occurred from 20 to 30, and 241 from 40 to 50. Capitals excepted, wherein the battle of life rages with fearful fury, it is safe to conclude that women feel the greatest propensity to self-murder between 40 and 50, which is confirmed by Mathieu, a French mathematician of the *Bureau des Longitudes*. Many patients have told me, with inexpressible anguish, that they feel “so strange in the head, so lost, so troubled with sensations of impending horror, that they must commit suicide to prevent their going mad.” Those who are so overcome as to attempt self-murder, generally know the enormity of the crime.

DEMONOMANIA.—When the belief in Satanic influence had a strong hold on the popular mind, lunatics often thought themselves possessed by the devil—but now they are less afraid of him than of the policeman. The only case of demonomania that I have seen, occurred to a lady at the c. of life. She attributed the distressing symptoms of uterine disease to the devil having taken up his abode in her body, and the delusion vanished when her health was restored.

Dr. J. Conolly relates a similar case in his Croonian lectures; the patient was also at the turn of life, and on analysing Esquirol's remarkable article on demonomania, I am struck by the fact, that all his cases occurred at this epoch. One patient, aged 46, thought the devil had placed a cord from the pubis to the sternum; another, aged 49, had been troubled by cerebral symptoms ever since cessation, at 40, and thought the devil lodged in her womb. A third, aged 48, declared that he had taken up his abode in each hip-bone. A fourth, aged 57, from nervous had become insane at 52, when cessation occurred, and she claimed the devil as the father of her children. A fifth, aged 51, thought she had signed a contract with the devil—an illusion which originated in puerperal mania.

Amongst less frequent propensities, I may mention, that I have known women, previously economically inclined, become reckless in their expenditure, and given to extravagance, at the c. of life; while others, from generous, become penurious, or avaricious, in the midst of plenty, and their talk was about the workhouse, and dying without bread. A lady, who suffered much from melancholy fits at this period, twice had both her ponies shot, because one of them was taken ill; and a Dispensary patient had a tactile delusion that she was covered with lice, which I could never detect; and, notwithstanding copious ablutions and sulphureous baths, she constantly returned with the same pitiful story.

After recounting the facts which prove that there are morbid affections of the ganglionic centre, I sought to understand their import before indicating their treatment; and now that the facts indicating the various forms of cerebral disturbance induced by the c. of life have been related, I shall call attention to their probable mode of production, before stating their best means of cure. Those who only want facts, and eschew theory, may pass over what follows, until their eye meets the name of some familiar drug; but they should remember, that if practising in the time of Stoll, they would have sought

to relieve the cerebral affections I have described by vomitives; if during that of Mauriceau, by repeated and copious bleedings—in other words, as their practice must be swayed by theory, they had better choose the best.

How can disease, or the morbid performance of the functions of the reproductive apparatus, act on the brain? There are but two channels of communication between the reproductive apparatus and the brain—the circulating and the nervous system; that is to say, for the reproductive apparatus to disorder the brain, something morbid must extend from the reproductive apparatus to the brain by the blood-vessels or by the nerves. It will not be difficult to show that the cerebral phenomena I have described do not depend on cerebral plethora, for, taking each phenomenon in succession, it will be found that intense nervousness exists more frequently in weak and anæmic than in plethoric patients. Leaving out of the question those in whom headache is caused by biliary derangement, it coincides much more frequently with a deficiency in the amount of blood than in the opposite condition, and often exists without any indication of congestion of the blood-vessels in the head. The same holds good with regard to hysteria and hysterical fits; doubtless there are sometimes fulness of the pulse and cerebral congestion, but in many cases the pulse continues weak, and the blood-vessels of the head exhibit no signs of over-distension. The symptoms described as pseudo-narcotism have many points of similitude with those of plethora and cerebral congestion, which were often and even now are sometimes so interpreted. Such symptoms, whether occurring in chlorosis or pregnancy, have been often treated by bleeding. The fact of the symptoms of pseudo-narcotism being often stringent when the pulse is weakest, shows that it does not depend upon plethora. It is very seldom caused by biliary derangement, and its being unattended by paralysis, or other signs of cerebral disease, implies that it is not caused by structural lesions of the brain.

It will be obvious that the same observations apply to epilepsy and to insanity. Doubtless, delirium and convulsions are often the immediate results of flooding; and when the cerebral symptoms I have described occur with chlorosis or profuse menstruation, they may be explained in the same way as the nervous accidents after flooding or copious bleeding—the brain being stimulated by imperfect blood. Very frequently, however, hysteria, pseudo-narcotism, &c., are observed when the tissues present every appearance of health, and when the amount of fluids in circulation seem in exact proportion to the wants of the system. The nervous phenomena cannot therefore be explained by anæmia. Drs. Todd and Cormack have revived the old opinion, which attributes hysterical delirium and convulsions to a toxæmic effect of the blood by the retention of something that ought to have been eliminated by the m. flow; but as hysterical symptoms are observed before first menstruation, they cannot be attributed to a poisoning of the blood. In this respect my observations are confirmed by Landouzy, who says, that he has observed symptoms indicating the influence of the generative organs upon the nervous system long before first menstruation, and even before little girls had any idea of sex; and I have met with well-marked cases of pseudo-narcotism in girls of 8 or 9 years of age, though first menstruation was delayed to 14 or 15.

If the reproductive apparatus does not act on the brain by the instrumentality of the circulating organs and their liquid contents, it must do so by means of the nerves. The genital apparatus is richly endowed with ganglionic nerves, and I have shown how frequently evident signs of disturbance in the ganglionic centres coincided with headache, nervousness, hysteria, and epilepsy. Thus, through the instrumentality of the nervous system, the brain receives the too strong stimulus of the ovarian nîsus. The influence of the generative apparatus in the production of nervousness is distinctly perceivable in many of the lower animals. In the beginning of spring,

just before the period of copulation, the nervous system of frogs is endowed with a most remarkable degree of irritability. The slightest touch will then produce those states of the nervous system which, at other times, can only be produced by narcotic poisons, or by energetic galvanic action. It is a matter of daily observation, that when women are subjected to increased ovarian action, they are also more irritable, more impressible to cold, to noise, to other physical agents, and to emotional stimuli.

Catamenial headache may surely be considered a nervous symptom, if it does not depend on plethora, is in frequent connexion with other nervous symptoms, comes and goes like those affections, and, like them, yields to sedatives. Pseudonarcotism may be explained in the same way. It should be considered as a peculiar kind of poisoning of the brain by the too abundant galvanoid influence sent to it from the ganglionic centre. Whether this disturbing influence acts on the entirety of the brain, or on that particular portion of it connected with the function of sleep, it is impossible to say. If the pathologists of all ages point to the reproductive organs as the starting-point of hysterical affections, they also, with Landouzy, have observed that, in hysterical fits, the patient generally complains, first of anomalous sensations at the lower part of the abdomen, then of the pain or suffocation at the pit of the stomach, afterwards of the sensation of strangulation, and lastly of the involuntary laughter or the tears, the convulsions, and the coma.

The ovarian nîsus reacts on the *cerebrum abdominale*, so as to multiply its power, and causes it to send something to the brain with such headlong precipitation, that woman, no longer the mistress of her own actions, is literally "fuddled with animal spirits, and made giddy with constitutional joy." The same ovarian nîsus, acting in greater quantity on different parts of the brain, or on differently disposed nervous systems, after accumulating for a time, breaks out, spending its energy

in hysterical convulsions, which may be followed by the temporary paralysis of the upper or lower limbs, as has been noticed in a previous chapter. Finally, when the ovarian nismus is at the highest, if it be suddenly disturbed by intense mental emotion, the centrifugal nervous currents directing the m. flow receive a check. The whole energy of the m. nismus is thrown on the central ganglia of the ganglionic system, which reacts on the brain with such intensity, that in a few hours death ensues, and nothing is found but congestion of the cerebral blood-vessels—congestion which may be in itself a result of the sudden death.

Professor Schulzenberger, of Strasburg, has shown—*Gaz. Méd. de Paris*, 1846—that it is sometimes possible, by mere pressure on the ovarian region, to cause the radiation of pain from that focus to the epigastric region, and by continuing the pressure, to cause globus hystericus, and then disturbance of the brain and spinal marrow, since hysterical convulsions were produced, while pressure on any other part of the body produced no such effects. In a highly nervous hospital patient, pressure to the ovarian region caused convulsions, without the intermediate minor symptoms of hysteria; and this experiment was repeatedly tried by several professors of the faculty of Strasburg, as well as by the gentleman who records the case. Similar cases have been seen by Romberg. The intimate connexion between the ganglionic and the cerebro-spinal symptoms of hysteria, their multitudinous gradations and great frequency, make me look upon hysteria as the keystone of mental pathology.

Esquirol has stated that the reproductive organs are often the centre from which emanates the stimulus sufficient to produce epilepsy; and I have lately seen this literally confirmed in a woman affected with subacute ovaritis, for pressure to the right ovary, intentionally or accidentally applied, repeatedly sent her off into epileptic fits, like the young lady mentioned by Sir B. Brodie, in whom a fit of chorea could be induced

by the gentle pressure of the finger on the pit of the stomach. I have thus shown how the ganglionic nervous centre induces hysteria, which was already, to a certain extent, admitted by Willis, Van Swieten, and Lobstein. With regard to epilepsy, the predisposing condition of the cerebro-spinal system is, of course, different from that of hysteria, but the mode of induction of the two diseases is the same. Epilepsy may arise without the generative organs being at all implicated, some other viscus impelling the ganglionic nervous centre to diseased action. Little is known about the anomalous sensations and epileptical aura arising from various parts; but the epileptic fit is often preceded by intense nervousness and fretfulness, numbness or formication of the limbs, and by epigastric pain, or a sense of suffocation sufficient to show the influence of the *cerebrum abdominale* in the production of the convulsive fit. Some of the cases recorded in this work, particularly that of Ollivier d'Angers, page 189, show that a relation of cause and effect may sometimes exist between cardialgia and paraplegia.

Having passed in review the effects of the reproductive organs on the cerebro-spinal system at successive periods of life, it remains to be shown how, in some women, it can be the main cause of insanity. If the reader will recal the results of his own experience, he will see:—

1. That between the haziness of intellect, the slight forgetfulness of pseudo-narcotism and idiotcy, there is no break; that every intervening degree is exhibited in some women at one of the phases of healthy or of morbid ovarian nisis.

2. That between the first slight estrangement of a girl's temper and the maniac's delirium there is no break; every intervening link being supplied by some women at one of the successive phases of healthy or of morbid ovarian nisis.

3. That between those first indications of uncontrollable muscular action called "the fidgets," and the strongest convulsions of hysteria, there is no break; every intervening link

being supplied by some women at one of the phases of healthy or of morbid ovarian nisis. What wonder, then, if the same powerful influence of the ganglionic nervous centre should at times produce a *permanent* derangement of the mental and moral faculties, and permanent craving after what is sophistic in a mental point of view, after what is wrong in morals, as well as after brandy and physical stimulants? I am thus led to look on the ganglionic nervous centre as a source of vital power in constant correspondence with the brain for the maintenance of the "animal forces," as they are called; and when exerting an undue influence, producing reflex morbid phenomena, in accordance with cerebral predispositions. If this be a true explanation of those rare instances of insanity produced by the undue action of the ovarian nisis, it follows that the causes of insanity should often be looked for in the ganglionic nervous system, and not in the brain; for if one visceral apparatus, endowed with ganglionic plexus and ganglia can so react on the brain as to produce mental derangement, why should not another, endowed with similar ganglia and plexus, react on the ganglionic centre, so as to cause similar results? In health, the ganglionic nerves of each viscus send up few intimations of their operations to the brain, and do not disturb the harmony of the mental functions; but Hippocrates, and many other illustrious men, think that their morbid action is often a cause of insanity. Why should it not be so, since the converse holds good, and since the mind, through the medium of the emotional powers, which are twin-born with the intellectual, powerfully influences all the viscera endowed with ganglionic nerves? The viscera are so many distinct centres of the animal organism. The soul acts on them by emotion, and they react on the soul, so as to determine passion. There is no passion without visceral—that is, ganglionic sensations. "The yearning of the bowels," an oft-recurring expression in the Bible, is physiologically true. Mothers feel it, so do lovers, and so do sailors at the first sight of land. Neither

can revenge be potent without strong visceral reaction ; or if, in popular phraseology, "a man lacks gall." Broussais was right in saying, that there cannot be epigastric pain without its causing some shade of anger, which was always partly determined by ganglionic reaction. Many are without passion, because visceral sensations are slight, or absent ; but if the brain acts so strongly on the viscera, it is not surprising that they should, in their turn, react upon the brain. When one of these viscera becomes a prey to morbid action by its ganglionic plexus, it reacts on the semi-lunar ganglia which influence the brain. When the disturbance is slight, it is felt in a loss of power, or what is termed "low spirits," or a sudden failure of mental energy on feeling a sinking and faintness at the pit of the stomach. From some slight visceral disturbance, lowness of spirits and causeless melancholy frequently come over us like a cloud. And if the cloud does not pass away, what is this but hypochondriasis, or insanity, for which the cause will be sought in the brain by those who only take a partial view of human pathology ? Can these assertions bear the test of practice, and do they hold good with both sexes ? I have met with remarkable cases of insanity in men, some of which will be found in my work on *Diseases of Women*. The patients were in good health, when, after a sudden mental shock, there immediately appeared the epigastric pain and phenomena, which lasted a considerable time, and were followed by a permanent cerebral disturbance, and by a temptation to suicide and murder. Here the shock to the ganglionic centre can be traced, but it is sometimes spontaneous. I believe that insanity is generally preceded by more or less prolonged cardialgia, but this fact is not to be ascertained in lunatic asylums ; to study insanity, in asylums only, would be like studying tubercular consumption in its second stage ; the first stage of insanity is hidden in the domestic circle, incapable of understanding its phenomena, or anxious to hide whatever may be understood. This has been pointed out by

Moreau, of Tours, who observes, "That almost all mental diseases are foretold and preceded by symptoms which generally pass unobserved, such as fainting, giddiness, and vertigo, and followed by nervous sensations arising from different parts of the body like the aura epileptica, which the patients compare to excitement, or to electrical shocks."

Dr. Shearman has laid great stress on the frequency of mental disturbance in the cases he has reported, and the subsidence of the cardialgic symptoms on the occurrence of the worst cerebral symptoms, has not escaped B. de Boismont, who remarks, "Without denying the part of the brain in hypochondriasis, it is evident that this affection has its starting point in the ganglionic nervous system; and I have frequently remarked that gastralgic affections, with great disturbance of the digestive functions, *alternate* with mental diseases, and that these gastralgic affections cease entirely when insanity becomes permanent."

Should it be asked, "Prove the preceding assertions by post-mortem examinations," (?) I would reply, that at present morbid lesions are earnestly sought for in the brain, but that the condition of the ganglionic system is never ascertained. Accurate research might confirm the assertion of Comparetti,* who found the splanchnic ganglia, particularly the semi-lunar, swollen and harder than usual in a hypochondriacal man who died at 40.

TREATMENT.—The frequency of slight cerebral affections, and the fearful gravity they may assume, render their treatment most important. The therapeutical principles applicable to diseases of the c. of life should be kept in view; for if, by clinical facts and rigid argumentation, it has been shown that the cerebral phenomena of cessation do not depend on general or cerebral plethora, it is to be hoped that, whatever may be the

* Occursus medici de vaga ægritudine infirmitatis nervorum, Venetiis, 1780, p. 136.

oscillations of medical doctrines, the time will never return for headache, pseudo-narcotism, and some forms of hysteria to be treated by repeated and copious bleedings. As, however, the influence of plethora as an additional cause of cerebral affections is not to be underrated, I do not suppose I shall be taxed with contradiction, if, while repudiating large bleedings, I seek to impress the conviction of the importance of small emissions of blood at the c. of life. Mild purgatives, either the saline or vegetable extracts, with calomel or blue pill, are often as advantageous in the cerebral affections of cessation as in other ailments, even when they are not positively indicated by the furred tongue and the deranged intestinal secretions. The use of antacids, cooling salts, and diuretics, as already explained, are useful adjuncts. Warm baths are very useful to relieve the extreme hyperæsthesia of the nervous system, severe pseudo-narcotism, and all those conditions which verge on insanity. The good effect of prolonged baths has been long shown by Pomme, and Recamier revived a practice which is now generally followed in French lunatic asylums.

Emetics are heroic remedies in a host of nervous affections, in long-continued globus hystericus, in spasm of the cesophagus, in nervous aphonia, in hysterical fixed pains, or in paralysis. They may be fearlessly given, unless debility is intense ; and as they frequently cure without the removal of bile, they probably act by suddenly breaking in upon a morbid disposition of the cerebral and ganglionic nervous forces, and promote their healthy equilibrium.

Sedative medications are, however, the chief remedies ; and what has been already said on this subject should be read as a preface to the suggestions about to be made. Faithful to the plan of applying the sedative to the suffering surface, I seek to relieve the distressing headaches of the c. of life, and many of its more distressing affections, by applications to the head. In all mild cases of headache, pseudo-narcotism, or hystericism, I recommend the patient to sponge the head all

over, once or twice a day, with cold vinegar and water, and after half drying the hair, to rub in, for 5 minutes, sweet oil, or any pomatum she may prefer. If these refrigerant measures do not relieve, hot flannels, sponges, and hot irons to the temporal regions, can be tried with due caution. When the symptoms indicate a tendency to insanity, I have the head sponged with water, holding in solution 2 to 4 oz. of camphorated spirits of wine to the pint, with the addition of a little eau de Cologne or lavender water. Camphorated vinegar and water, or water in which camphor has stood, or the comp. camphorated liniment well diluted, are excellent remedies. This last has been sold as "Ward's essence for the headache;" but a still better preparation is Raspail's sedative lotion, the formula of which will be found at page 106. This lotion may be used with a small sponge, or a pad of soft linen may be soaked in it, applied to the painful part of the head, and renewed as often as may be required. It reddens the scalp, causes burning sensations, and sometimes cutaneous eruptions; its action can be lessened by diluting it with water, but in severe cerebral affections, a handkerchief should be tied round the forehead to prevent the liquid running into the eyes, while copious spongings are made to the head of the reclining patient. Cold cream should afterwards be rubbed into the scalp, or cold cream with 1 drachm to the oz. of camphor, and 10 drops of the essential oil of bitter almonds. In pseudo-narcotism amounting to stupor, I have, in addition to other means, rubbed into the scalp eau de Cologne with as much camphor as it would dissolve. After rubbing it in for a few minutes the patient has come to herself. In a case in which these attacks of stupor frequently followed the epigastric pain, this was my only treatment during the attack. On recovering her senses, the patient felt as if her brain were "benumbed," and then succeeded a sensation of internal pricking, like "pins and needles." When this was complained of, I wrapped the head in a turban of flannel, and left the

patient to repose. The effects of these measures are sometimes surprising when they are faithfully carried out ; but as nothing is so irksome as system, most patients prefer talking about the inefficacy of medicine to carrying out systematically any plan of treatment. In severe cases the head should be shaven, and sedatives rubbed into the scalp. The ext. of belladonna, hyoscyamus, and opium, are what I have generally used, 1 drachm of each to 1 oz. of cold cream ; but they may very advantageously be combined with mercurial ointment, as in the instances already given. Cold sponging of the shaven head, the shower bath, and douches to the spine and limbs, are very useful. The other treatment required to cure nervousness, pseudo-narcotism, hysteria, &c., is given in my remarks on sedatives. I shall merely urge the necessity of procuring sleep in difficult cases. Dr. Reid has not exaggerated the evil effects of vigilance. "Constant vigilance will be likely to produce insanity, by subjecting the mind habitually to that increased violence of feeling which we must have observed to take place during the darkness, the silence, and the solitude of night. It is astonishing, in how much more lively a manner we are apt, in these circumstances, to be impressed by ideas that present themselves, than when the attention of the mind is dissipated, and its sensibility in a considerable degree absorbed by the action of light, sound, and that variety of objects which, during the day, operate upon our external senses."* Sleep is indispensable to the full effect of all other remedies. The first opiate I employ is the c. ipecac. powder, from 5 to 10 grs., increasing the dose if the desired effect be not produced, or if it cause sickness. If this be insufficient, other opiates should be given, combined with purgatives, as prescribed by De Haen ; half or a sixth of a gr. of acetate of morphine with some pill, habitually used, to keep the bowels open. The dose is to be increased until its full effect is produced.

* Reid's "Essays on Insanity," p. 76.

With regard to sleep, young practitioners must be aware that the testimony of aged patients cannot be relied on unless it be corroborated by that of others ; for the aged often fancy they do not sleep at all, and firmly deny having done so, after a very fair proportion of the blessing.

Incipient insanity, when accompanied by signs of ovario-uterine disease, may be generally cured by the exhibition of sedatives by the rectum. Dr. Ferrus attributes great utility to menstrual medications, when insanity has coincided with, or has seemed to be determined by, the suspension of the m. flow ; and he agrees with Dr. Conolly that, in such cases, the prognosis is most favourable. Amongst others much benefited by this mode of treatment I may mention a patient sent to me by Mr. F. Brown, of Chatham, whom I only saw once. She was about 50 at the c. of life, lived in complete seclusion, and was a prey to all sorts of strange delusions. As there was leucorrhœa, frequent uterine pains, and great suffering on digital examination, there was a chance that sedative enemata might afford her relief ; so I ordered them, with other measures, though without giving much hope to her husband. I heard, however, from another lady, that my treatment had been so successful that she was herself induced to consult me. Many patients are sleepless, restless, nervous in the extreme, always in motion, always attempting, but with little strength to perform ; the distinction, then, between the radical and acting forces should be remembered, the object being to moderate the acting, and to increase the radical forces ; accordingly, steel may sometimes be advantageously associated with sedatives ; the citrate of iron in 5 or 10 gr. doses, in an effervescing draught after meals, is the best way of taking it. With regard to the prevention of nervous affections and insanity at this period, my only recommendation is, to read over again the chapter on the general principles of hygiene at the c. of life.

CHAPTER XII.

SOME OTHER AFFECTIONS OCCURRING AT THE C. OF LIFE.

TABLE XXX.

Liability of 500 Women to some other Affections at the c. of Life.

Gout	3
Rheumatic fever	3
Rheumatic swelled joints	7
Hypertrophy of the heart	1
Subacute peritonitis	1
Ascites	1
Consumption, aggravated	3
Bronchitis, aggravated	4
Asthma, aggravated	1
Hæmoptysis	6
Ruptured varicose veins	3
Epistaxis	9
Chronic otorrhœa	1
Hæmaturia	1

—
44

GOUT.—According to Hippocrates, women are not subject to gout until after cessation; but he alluded to Grecian women living in retirement. When women lead the life of men, they become, to a certain extent, liable to their disorders; and in many of our aristocratic families the hereditary tendency to this disease is so confirmed, that all the daughters suffer more or less from it in early life.

Chomel, Ferrus, and myself, have seen gout when the m.

flow was proceeding regularly. The following table, extracted from the Registrar-General's Report, throws light on this subject.

TABLE XXXI.

Relative Liability to Gout in both Sexes at successive Periods.

Ages.	Males.	Females.
5	...	11
5 to 10	...	212
10 „ 15	67	
15 „ 20	168	56
20 „ 30	541	121
30 „ 40	732	291
40 „ 50	1148	152
50 „ 60	458	103
60 „ 70	186	
70 „ 80		
Total	3300	946

This shows that women are most liable to gout at puberty and at the c. of life; but before the m. flow is regularly established, gout generally assumes an anomalous character, being accompanied by singular nervous symptoms, of which I saw a remarkable instance in a young Russian countess. At the c. of life, and after cessation, this disease follows its usual course, as in the other sex. It is curious to note that up to 15, no seeds of gout have been evolved in the male sex, whereas many had grown up in the female, and that while in man, the liability to gout goes on increasing from 15 to 60, in woman, puberty seems to sweep away its tendency, for there is none from 15 to 20, though after that age, when the body has attained its full size, the seeds begin to develop themselves, and gout becomes most frequent between 40 and 50.

RHEUMATIC FEVER AND JOINTS.—The statistics of rheumatic affections likewise evince that from 40 to 50 a change takes place in the female constitution, for up to 40 more men than women die from rheumatic affections, while from 40 to 50 the

deaths from these affections are, 604 women to 295 men, and from 50 to 60, 755 women to 338 men. This increased liability to rheumatism probably depends on an altered condition of the blood, and on the possibility of habitual perspiration being checked after cessation. The rheumatism of those who are nursing can be thus accounted for. With regard to the treatment of gout and rheumatism, I shall merely say, that I have seen the mineral waters of Aix en Savoie very advantageous in the chronic stages of both affections.

ASCITES.—I have seen only 2 cases of this affection at the c. of life, but I have very frequently noticed the pitting, on pressure, of both the lower limbs at this period. On referring to the Registrar-General's Reports, I find that more women than men die of dropsy from 40 to 50, in the proportion of from 9 to 5; and from 50 to 60, in the proportion of from 14 to 6. Portal and Gardanne have stated, that women were particularly subject to dropsical effusions of an obstinate nature at the c. of life. Breschet, in his researches on *Hydropsies Actives*, relates the case of a lady, who first menstruated at 13, and ceased at 48, though the characteristic phenomena of cessation are said to have only come on at 54; namely, great debility, flushes, vertigo, headache. At 55, after a fit of anger, the whole body swelled considerably, except the arms. There was fever, furred tongue, headache, oppression, and sediments in the urine. Twelve days after this, 18 leeches were applied to the anus, and the swelling diminished; on the 18th day an emetic was given, and on the 28th all signs of effusion had disappeared. This case brings to my recollection another instance of dropsy, caused by severe and sudden mental perturbation. A gentleman, aged 25, who had habitually enjoyed good health, was standing at the altar and about to be married, when some one stepped forward to forbid the ceremony. On his return home his legs swelled, serum became generally effused in the cellular tissue, ascites appeared, the urine was albuminous,

and in a few months the patient died. A *post mortem* examination was not permitted.

CONSUMPTION.—On consulting Dr. Quain, whose large experience in pulmonary disorders enables him to speak authoritatively on the subject, I find he is of my opinion, that the morbid influence of the c. of life on consumption is not great. If it appear at this period, it has previously existed under a latent form, as in 3 cases where I have seen it severely aggravated. Dubois mentions two ladies who were saved from phthisis by the regular establishment of the m. flow, but who fell victims to that complaint at the c. of life without any other apparent cause. B. de Boismont says, that in 10 cases he has been the sad spectator of the rapid progress of consumption at this epoch, which had previously remained stationary for years.

BRONCHITIS.—In 4 of my cases, habitual bronchitis dated from the c. of life, and seemed to have been caused by it. Bordeu has noted similar cases.

HÆMOPTYSIS.—This occurred to 8 patients, and was evidently caused by the c. of life and the arrest of an habitual hæmorrhage. Bordeu has also observed cessation to be followed by monthly attacks of oppression, and by spitting of blood.

HEART-DISEASE.—The heart suffers very little at the c. of life; my experience on this point again coincides with that of Dr. Quain, for out of my 500 cases, there was only one of hypertrophy with morbid sounds in a woman, aged 60, and she presented the only instance of *arcus senilis*.

EPISTAXIS.—This critical effort of nature may become a disease, and the nose may require plugging. Menville gives a case wherein slight epistaxis occurred repeatedly during the dodging-time, when it became very abundant until the m. flow ceased. I have seen women subject to this complaint for from 3 to 5 years after cessation.

RUPTURED VARICOSE VEINS.—Stalh has observed this to occur after cessation, and I have seen it in three instances.

OTORRHŒA.—I have noticed this complaint to come on periodically with the m. flow, and the fact has not escaped the accurate observation of Mr. Harvey. M. S., aged 52, suffered much from otorrhœa for two years previous to the first m. flow, very little from it while menstruation continued regular, but it returned with renewed pertinacity 13 months before cessation took place.

SUMMARY.

IN the course of this work my object has been to establish by facts and logical inference,

1. That the period of life comprised between the 40th and 50th years, commonly called the change of life, is eminently critical; that while in most women the critical phenomena with which this epoch abounds are instrumental in curing the complaints and strengthening the constitution, there are a certain number of women in whom these critical phenomena give rise to numerous, and sometimes to fatal diseases.

2. That a more accurate physiology of the change of life can alone explain its pathology. That the date of cessation; its diagnosis from some of the affections to which women are liable at the decline of life; the various compensating agencies by which health is then maintained in the absence of a thirty years' habitual sanguineous flow, are points of deep interest, and the last explains how nature remodels the female frame, so as to endow it with greater longevity, and with a comparatively greater immunity from disease.

3. That instead of adopting the vague or hazardous notions generally put forth respecting diseases of the change of life, it is better to seek a knowledge of the real morbid liabilities of this epoch, from the per centage of various diseases, deduced from a large number of well-tabulated cases.

4. That the natural history of the change of life can alone indicate the best modes of treatment for the complaints incidental to this period, and that, notwithstanding the interference of fashion with medical practice, it is still safe and

desirable to imitate the critical efforts of nature at this crisis, by bleeding, by giving purgatives and sudorifics.

5. That for the preservation of the health of women at the change of life, and for the possibility of deriving full benefit from the beautifully adapted critical phenomena then progressing, it is necessary that women should adhere to a judiciously laid down code of hygiene.

6. That the first part of the period under consideration is one of turbulent activity for the reproductive organs, giving rise to numerous complaints, comparatively few of which come under medical treatment, though many are patiently borne, until, by their reaction on the nervous system, they help to produce many forms of nervous disorder.

7. That the digestive organs, particularly the biliary apparatus, are very frequently affected at this period.

8. That the affections of the skin, noticed at the change of life, are rather tedious than severe.

9. That well-localized nervous affections sometimes occur at this critical epoch.

10. That there are ganglionic nervous affections, which should be carefully distinguished from the cerebral and the spinal nervous affections, with which they are now confounded, because they often coincide and alternate with them; that these ganglionic nervous affections most frequently occur in women, at all the critical epochs of the reproductive function, and are very general at the change of life.

11. That there are several well-determined modes of cerebro-spinal disturbance to which the term hysteria is indiscriminately applied, and that, unless clearly defined, that term is a bar to the progress of mental pathology, by lending to ignorance a scientific cloak. That cerebral affections are so common at the change of life, that few, if any, women escape suffering from the milder forms of cerebro-spinal disturbance, and that these, if neglected, sometimes merge into the many varieties of insanity, the worst cases being, however, peculiarly amenable

to treatment, of which the local application of sedatives is an essential part.

12. That women, at the change of life, are frequently afflicted with cancer, gout, and rheumatism.

I cannot conclude without giving expression to the hope, that this accurate study of an important period of life may diffuse a better appreciation of its beneficial action, that it may lead to the prevention of a large portion of the sufferings often attending it, and to more rational and systematic modes of treatment. To this hope I cling, otherwise fruitless will have been my labour for the last seven years.

INDEX.

A.

- ABDOMEN, flatulent distension of the, 174
 ,, pendulous, 124
 Abdominal neuralgia, 184
 Abscesses at the c. of life, 176
 Acetate of lead, 227
 Aconitine in cardialgia, 225
 Acupuncture, 227
 "Age de retour," 1
 Aix en Savoie, beautiful scenery of, 113
 ,, sulphureous springs of, 113
 ,, ferruginous water of, 114
 ,, analysis of the waters of, 115
 ,, modes of exhibiting the waters of, 115
 ,, effects of the waters of, in cutaneous affections, 182
 ,, " " in biliary affections, 165
 ,, " " in paraplegia, 191
 ,, " " in neuralgic affections of the skin, 198
 ,, " " in cardialgia, 227
 Alkalies, useful at the change of life, 95, 164
 ,, exhibition of, 96
 ,, Dr. Shearman's opinion of, 96
 Alun spring, at Aix en Savoie, 114
 Amaurosis, uncommon, 196
 Ambergis, a reviver of nervous force, 107
 Amenorrhœa producing lethargy, 243
 Anaphrodisiacs, utility of, at the c. of life, 99
 Anæsthesia, 15
 Anatomical state of the ovaries at the c. of life, 11
 ,, " " in prolonged menstruation, 27
 Ancients, well acquainted with camphor, 105
 Apathy at the c. of life, 261
 Aphonia, nervous, 197
 ,, treatment of, 198
 Apoplectic fits caused by cessation, 233
 Apoplexy, 233
 ,, treatment of, 235
 Ascites, 286
 Ashwell's, Dr., treatment of diseases at the c. of life, 134
 Asthma, cardialgic, 216
 ,, hysterical, 216
 Average date of cessation, 17
 ,, duration of the menstrual function, 48
 ,, " fecundity, 48

B.

- BATHS, stimulating in paraplegia, 191
 ,, " chronic paralysis, 191
 ,, utility of, at the c. of life, 108

- Baths, warm, diminish nervous irritability, 109
 „ Pomme's opinion of, 110
 „ appropriate temperature of, 110
 „ fatal accidents caused by hot, 111
 „ temperature of, to be tested by the thermometer, 111
 „ cosmetic, 124
 „ public, fatal accidents occurring at, 111
 Battley's solution of opium, 102
 Belladonna internally given, 104, 157
 „ Dr. Debreyne's opinion of, 104
 „ externally applied, 104
 „ ointment, 104, 237
 „ plasters, 104, 224
 Bernard's experiments on the great sympathetic, 200
 Beverages suitable at the c. of life, 123
 B. de Boismont on the date of cessation, 16
 „ „ insanity at the c. of life, 256
 „ „ the duration of the m. function, 46
 Bibliography of the c. of life, 2
 Biliary affections at the c. of life, 162
 „ „ after cessation, 162
 „ „ treatment of, 164
 „ derangement sometimes causes sleep, 272
 Bilious, the, suffer much at the c. of life, 73
 Bismuth, oxide of, in cardialgia, 226.
 „ nitrate of, in cardialgia, 226
 Bleeding, no longer fashionable, 85
 „ how often practised in 500 women at the c. of life, 85
 „ useful in addition to calomel and antimony, 86
 „ most useful in plethoric women, 86
 „ indications of, at the c. of life, 86
 „ mischievous, in nervous disorders at the c. of life, 86
 „ from the arm, preferable, 89
 „ to be repeated at longer intervals and to a smaller amount, 90
 „ utility of, pointed out by the frequency of hæmorrhages, 84
 Blisters, in cardialgia, 225
 „ permanent, 112
 Blood-theory of disease at the c. of life, 80, 272
 Blushing, theory of, 59
 Boils, 182
 Brachet's experiments on the great ganglia, 218
 Bramwell, Baron, on the object of punishment, 266
 Breakfast at the c. of life, 122
 Bronchitis, 287
 Brow ague, 181
- C.
- CALCAREOUS uterine humours, 155
 Camphor, 226
 „ known to the ancients, 105
 „ opinions of many authorities, 105
 „ external application of, 106
 „ and chloroform, utility of, 107
 Cancer, 37
 „ of the womb, frequency of, at the c. of life, 156
 „ influence of cessation in producing, 157
 Caplin's, Madame, elastic appliances for pendulous abdomen and breasts, 124
 Cardialgia, intermitting with paraplegia, 190
 „ a ganglionic affection, 204
 „ painful variety of, 204

- Cardialgia, anomalous variety of, 207
 - " how induced by the c. of life, 82
 - " causes of, 13, 218
 - " illustrations of, 210
 - " observed in spermatorrhœa, 220
 - " symptoms and diagnosis of, 220
 - " intense debility caused by, 221
 - " tertian type of, 221
 - " treatment of, 222
- Cardialgic asthma, 216
- Cases, table of, xix
- Castor, utility of, 107
- Catamenial headache, 274
- Cause of puberty, ovarian evolution, 11
 - " cessation, ovarian involution, 11
 - " late fecundity, 22
- Causes of protracted menstruation, 24
 - " early cessation, 28
 - " " erroneously given, 27
- Celibacy not a cause of disease at the c. of life, 77
- Cerebral disturbance, caused by ovario-uterine excitement, 99
 - " " frequent at cessation, 72
 - " affections, frequency of, 230
 - " " obstinacy of, 230
 - " " intricacy of, 230
- Cerebro-spinal diseases, how induced by the c. of life, 82, 272
- Cessation generally attended by slight cerebral disturbance, 72
 - " confounded with late pregnancy, 37
 - " late date of, often predicable, 25
 - " mistaken for pregnancy, 38
 - " definition of, 1
 - " producing cardialgia, 210
- Change of life, exaggerated notions of its dangers, 117
 - " real dangers of the, 117
 - " frequency of, motives for, and dangers of marriage at the, 119
 - " premonitory signs of the, 117
 - " influence of, on the chemistry of respiration, 55
 - " on ovarian tumours, 159
 - " generally left to nature, 118
 - " perversion of moral instincts at the, 118
 - " influence of the, on the passions, 67
 - " a critical epoch, 4
 - " curative of insanity, 6
 - " does not always prevent fecundity, 48
 - " not synonymous with old age, 99
 - " compensating agencies of the, 54
 - " compared to puberty, 76
 - " physiology of the, 9
 - " diathetics of the, 122
 - " definition of the, 1
- Cherry-laurel water, utility of, 107
- Chest pains, 210
- Chloroform, as a local application, 225
- Chlorosis, a ganglionic affection, 228
 - " frequency of, 227
 - " at various stages of the reproductive function, 227
 - " diagnosis of, at the c. of life, 32
 - " pathology of, 228
 - " eccentric causes of, 228
 - " centric causes, 228

- Chlorosis, treatment of, 228
 „ caused by morbid ovarian influence, 13
 Chlorotic type, physiognomy of the, 31
 Cholera, a cause of premature ovarian paralysis, 28
 Chronic enlargement of the neck of the womb, 47
 Clarke, Sir C. M., on corroding ulcer of the womb, 157
 „ „ on medical practice at the c. of life, 7
 Clitoris, follicular inflammation of the, 143
 Coffee, often objectionable at the c. of life, 123
 Cold, intense, a cause of premature ovarian paralysis, 28
 Colics, 228
 Coma, a symptom of severe hysteria, 243
 „ fits of, at the menstrual periods, 244
 Compensating agencies of the c. of life, 54
 Composition of perspiration, 62
 Comparative frequency of morbid symptoms at the c. of life, 70
 Conception at the c. of life, 48
 Conium, extract of, useful at the c. of life, 104
 Connexion may produce pseudo-narcotism, 241
 Conolly, Dr., on melancholia at cessation, 260
 Constipation at the c. of life, 169
 Constitution strengthened by the c. of life, 6
 Constitutional diseases, 73
 „ treatment to be combined with local measures, 224
 Consumption, 287
 „ Dr. Quain on, 287
 Contents, table of, vii
 Copious bleeding erroneously practised for nervous affections of the c. of life, 80
 Copland, Dr., on fainting and syncope, 203
 Convulsions caused by morbid ovarian influence, 15, 274
 Critical, correct meaning of, 3
 „ epochs of women, 4
 „ „ length of, 45
 „ nature of perspiration at the c. of life, 63
 „ „ mucous flows at the c. of life, 64
 Cupping from the nape of neck, 91
 Curative effects of the c. of life, 5
 Cutaneous affections at the c. of life, 173
 „ „ after cessation, 176
 „ „ treatment of, 178

D.

- DANGERS of mistaking pregnancy, 23
 „ the sudden stoppage of the m. flow at cessation, 77
 Date of cessation in the early menstruated, 26
 „ „ late menstruated, 26
 „ table of the, 16
 „ according to B. de Boismont, 16
 „ „ „ Dr. Guy, 16
 „ „ „ Dr. Tilt, 16
 „ puberty in England, 9
 Davey, Dr., on insanity at the c. of life, 5, 255
 Day, Dr., on the c. of life, 66
 „ on the therapeutical agency of heat, 112
 Deafness at the c. of life not senile deafness, 196
 Debility, radical, constantly attending each process of reproduction, 201
 „ caused by cardialgia, 221
 „ a ganglionic affection, 201
 „ its attendant epigastric sensations, 202

- Debreyne, Dr., on belladonna, 104
 Definition of flushes, 176
 " syncope, 202
 " fainting, 202
 " faintness, 202
 " change of life, 1
 " turn of life, 1
 " "temps critique," 1
 " "âge de retour," 1
 " cessation, 1
 " "ménopause," 1
 " the dodging-time, 1
 " cardialgia, 218
 " nervous irritability, 230
 " pseudo-narcotism, 237
 " hysteria, 247
 " hysterical fits, 247
 " " apoplexy, 247
 " premature ovarian paralysis, 28
 Delicate women made stronger by the c. of life, 68
 Delirium, a symptom of morbid menstruation, 15
 " at the c. of life, 256
 " cases of, 257
 Demonomania, 270
 " not unfrequent at the c. of life, 271
 Diagnosis of cessation, 31
 " " from chlorosis, 32
 " " " ulceration of the womb, 32
 " " " uterine polypus, 84
 " " " fibrous tumour of the womb, 35
 " " " uterine hydatids, 35
 " " " cancer of the womb, 37
 " " " pregnancy, 37
 " flooding, 136
 " cardialgia, 220
 Diaphragm, spasmodic contraction of the, 214
 " nervous affection of the, 216
 Diarrhœa, 165
 " a cause of premature ovarian paralysis, 28
 Dinner at the c. of life, 122
 Diseases of the c. of life, amenable to treatment, 84
 " " degrees of frequency of the, 82
 " " more severe from the neglect of bleeding, 84
 " " nature of the, 82
 " predicable at the c. of life, 71
 " most to be feared at the c. of life, 73
 " real cause of, 79
 " of menstruation, nervous theory of, 12
 " of the brain at the c. of life, 229
 " " after cessation, 229
 " " treatment of, 229
 " of digestive organs at the c. of life, 161
 " " after cessation, 161
 " " treatment of, 164, 167, 170
 Dodging-time, definition of the, 1
 " length of the, 44
 Douches, in neuralgic affections of the skin, 198
 " of thermal springs, for chronic paralysis, 191
 Dry-heats, or morbid flushes, 177
 " cupping, 112

- Dugès, Dr., on flooding at the c. of life, 136
 Dumas, Dr., on camphor, 105
 Duration of the m. flow, 50
 Dusourd, Dr., on the duration of the menstrual function, 46
 Dyspepsia, 162
 „ sinking, 216

E.

- EAB, noises in the, 197
 Eclampsia mistaken for drunkenness, 244
 Eczema, 182
 Embonpoint, sudden, a sign of cessation, 53
 Emetics, in nervous aphonia, 198
 „ „ affections, 280
 „ globus hystericus, 280
 „ hysterical paralytic affections, 280
 Emmenagogues, dangers of, at the c. of life, 120
 Entorrhagia, 167
 „ its treatment, 167
 Epigastric medications, in cardialgia, 224
 „ „ cerebral affections, 239
 „ „ chlorosis, 228
 „ region, a centre of nervous power, 223
 Epilepsy, 250
 Epistaxis, 287
 Equitation, objectionable at the c. of life, 126
 Erysipelas, 181
 Ether, in nervous aphonia, 198
 „ cardialgia, 225
 Exercise, varied modes of action of, 125
 „ augments the urea in the urine, 125
 „ exhausts nervous irritability, 125
 Eyes, neuralgia of the, 196

F.

- FAINTING not syncope, 203
 „ definition of, 203
 Faintness, definition of, 203
 „ a sliding scale from, to fainting off, 203
 Falls on sacrum, 28
 Fat, relation of, to the c. of life, 52
 „ how to get, 122
 Fatal effects of the c. of life, 4
 Fatty degeneration of the womb, 158
 Favre, Dr., on perspiration, 61
 Fecundity of women at various ages, 19
 „ Irish women at the c. of life, 21
 „ Swedish women at the c. of life, 21
 „ English women at the c. of life, 21
 „ average duration of, 48
 „ possible at the c. of life, 48
 „ after cessation, 49
 Female happiness, how influenced by cessation, 68
 Ferrus, Dr., on insanity at the c. of life, 6
 Fever, a cause of premature ovarian paralysis, 28
 Fevers may cause protracted menstruation, 24
 Fibrous tumours of the womb cause protracted menstruation, 24
 „ „ mistaken for pregnancy, 34
 „ „ at the c. of life, 35, 154
 Final results of the c. of life, 66

- Fits, hysterical, 247
 „ of speechlessness, 251
 „ of unconsciousness, 252
 Flannel, at the c. of life, 63, 125
 Flatulence at the c. of life, 174, 249 ..
 Flooding, cessation of, 135
 „ diagnosis of, 136
 „ from ulceration of the neck of the womb, 137
 „ from uterine tumours, 138
 „ „ cancer, 138
 „ local treatment of, 140
 „ utility of, 65
 Flourens, M., on the c. of life, 66
 Flushes, synonymy of, 176
 „ pathology of, 176
 „ causes of, 176
 „ treatment of, 176
 „ powders for, 180
 Food, less, required at the c. of life, 122
 Follicular inflammation of the pudenda, 143
 Forbes Winslow, Dr., on insanity at the c. of life, 255
 Formula of bleeding suited to the c. of life, 90
 Frame, how influenced by the c. of life, 65
 Frank, Dr. J., on the duration of the m. function, 47
 „ on the treatment of cardialgia, 226
 Friction of the skin, in a therapeutical point of view, 124
 Fright, a cause of premature ovarian paralysis, 28
 „ „ protracted menstruation, 24

G.

- GANGLIONIC nervous affections, obscurity of, 200
 „ „ frequency of, at c. life, 199
 „ „ after cessation, 199
 „ „ Sir H. Holland's appreciation of, 200
 „ „ Dr. H. Jones's remarks on, 200
 Ganglionic nervous centre, Galen's lever of vital force, 219
 „ „ results of violent concussion of the, 219
 „ „ concussion of, in vomiting, 219
 „ „ spontaneous concussion of the, by centric causes, 219
 „ „ powerful re-action of the, on the brain, 223
 „ „ always re-acted on by passions, 277
 „ „ morbid re-action of the, on the brain, a cause of
 insanity, 277
 Ganglionic nervous system, Brachet's experiments on the, 218
 „ „ Bernard's experiments on the, 219
 „ „ most active in women, 220
 „ „ „ convalescence, 219
 „ „ „ agues, 219
 „ „ at critical phases of the reproductive function, 220
 „ „ inducing diseases of menstruation, 12, 274
 „ „ „ hysteria, 12, 275
 „ „ „ pseudo-narcotism, 12, 274
 „ „ „ relation of, to animal-heat, 60
 Gastralgia, 216
 Gastrodynia, 216
 Globus hystericus, caused by morbid ovarian influence, 14
 „ frequency of, at the c. of life, 247
 „ treatment of, by emetics, 280
 Gout, 284

Gout, liability to, in both sexes, 285
 Guy, Dr., on the duration of the m. function, 47

H.

- HÆMATURIA, 159
 Hæmoptysis, 287
 Hæmorrhoids, 170
 „ treatment of, 170
 Hæmorrhages, relief afforded by, at the c. of life, 65
 „ frequency of, at the c. of life, 65
 „ more or less critical, 65
 Harvey, W., on deafness at the c. of life, 196
 Headache, 231
 Headache, periodical, 232
 Health, elements of, and principles of female hygiene, 6
 Heart-disease, 287
 Heat, how influenced by the ganglionic nervous system, 60
 Hemicrania, 233
 Hemiplegia, 233—235
 Herpetic affections of the labia, 145
 „ „ „ treatment of, 146
 Holland, Sir H., on the pathology of the ganglionic nervous system, 200
 „ sedatives, 97
 Homœopathic regimen, 124
 Hood, Dr., on insanity at the c. of life, 6
 Horse exercise at the c. of life, 126
 Hot blooms, 175
 „ irrigations in chronic paralysis, 116
 Huguier, on pudendal lupus, 182
 Hunt, Mr. Thomas, on cutaneous affections at the c. of life, 181
 Hunter's sensitive centre, 223
 Hydrocyanate of zinc, 226
 Hygiene of the reproductive organs, 118
 „ digestive „ 121
 „ cutaneous „ 124
 „ muscular system, 125
 „ nervous „ 126
 Hyoscyamus, great utility of, 103, 226
 Hyperæsthesia of the celiac plexus, 216
 „ solar, 216
 Hypochondriasis, 259
 Hypogastric pains, described, 185
 „ pathology of, 186
 „ expulsive character of, 186
 „ relative frequency of, 186
 „ treatment of, 188
 Hysteria, before puberty and after cessation, 81
 „ at the c. of life, 242—246
 „ a term to cloak our ignorance, 240
 „ the keystone of mental pathology, 275
 Hysterical asthma, 216
 „ apoplexy, 247
 „ diathesis, 247
 „ fits, 247

I.

- ICE, in cardialgia, 227.
 „ flooding, 140
 Impotence, cause of its frequency in the East, 99
 Impulses, doctrine of irresistible, 266

- Impulse to steal, 269
 - „ commit murder, 269
 - „ „ suicide, 270
 - „ for spirits, 269
- Insanity at the c. of life, 254—259
 - „ frequency of, at different periods of life, 254
 - „ forms of, 255
 - „ Dr. Forbes Winslow on, 155
 - „ Dr. Davey on, 255
 - „ Dr. Wood on, 255
 - „ B. de Boismont on, 255
 - „ induced by morbid ganglionic influence at all stages of the reproductive process, 277
 - „ theory of its induction in men, 278
 - „ treatment of, 279
 - „ successful treatment of, 283
- Intercostal muscles, spasmodic contraction of the, 213
 - „ neuralgia, 193
 - „ „ treatment of, 195
- Intoxication at the c. of life, 123
- Introduction, 1
- Irresistible impulses, doctrine of, 266
 - „ „ „ how judged by the medical profession, 266
 - „ „ „ contested by the legal profession, 266
- Issues, questionable utility of, 113
 - „ modus operandi of, 112
- Jaundice, 163

K.

- KIDNEYS, agency of the, at the c. of life, 54
- Kiwisch, on prolapsus of the womb, 153

L.

- LABIA, follicular inflammation of the, 143
- Lane, Dr. B., on biliary affections of the c. of life, 162
- Laudanum, 102
- Lavoisier's estimate of loss by perspiration, 61
- Leeches to the womb, in paraplegia, 190
 - „ „ objectionable at the c. of life, 91
 - „ „ anus, 91
- Legs, ulcerations of the, at the c. of life, 71
- Leipthymia, sliding scale between, and faintness, 216
 - „ a cause of sudden death in full convalescence, 203
 - „ „ „ „ intermittent fevers, 204
 - „ „ „ „ the puerperal state, 204
 - „ „ „ „ old age, 204
- Lethargy in amenorrhœa, 243
- Leucorrhœa, periodical, 64
 - „ a critical discharge, 141
- Lichen, 181
- Local depletion at the c. of life, 90
- Longevity, greatest where puberty is retarded, 25
 - „ often coincident with protracted menstruation, 25
 - „ most frequent in women, 7
- Lotions, useful at the c. of life, 122
- Lumbo-dorsal pain, pathology of, 185
 - „ „ relative frequency of, at the c. of life, 185
 - „ „ treatment of, 188

Luncheon at the c. of life, 122

Lupulin, 107

Lupus, pudendal, 182

M.

MAMMARY irritation at the c. of life, 160

„ tumours, non-malignant, 160

Mania, illustrations of, 257

Manual labour, useful in nervous affections, 118

Marriage, frequency of, at the c. of life, 19, 20, 119

„ „ after cessation, 19

„ motives for, at the c. of life, 119

„ dangers of, at the c. of life, 119

Meatus urinarius, erectile tumour of the, 159

Medical advice necessary, for taking hot baths, 111

„ „ for taking active mineral waters, 127

„ „ for marriage at the c. of life, 119

Meigs, Dr., on medical practice at the c. of life, 7

Melancholia, or hypochondriasis, 259

„ at cessation, 260

„ treatment of, 264

„ illustrations of, 262

Memory, loss of, in pseudo-narcotism, 242

„ „ pregnancy, 244

Ménopause, 1

Menstrual epochs, duration of the, 50

„ flow, stopped by ulceration of the womb, 33

„ function, average duration of the, 47

„ „ terminations of the, 50

„ „ influence of early and late puberty on its duration, 47

Menstruation, remittent, 135

„ diseases of, at the c. of life, 133

„ vicarious, at the c. of life, 65

„ blood, theory of morbid, 12, 272

„ nervous theory of morbid, 12, 273

„ normal symptoms of, 10

„ morbid symptoms of, 11

Mental and moral hygiene, 128

„ derangement, Dr. Reid on, 267

Metritis, frequent at the c. of life, 144

„ treatment of, 144

Mind, influence of the c. of life on the, 66

Mineral waters, not to be taken without advice, 127

Mitchell, Dr., on the treatment of superficial neuralgia, 112

Monthly phenomena, recurring after cessation, 55

Moral instincts perverted at the c. of life, 265

Moreau de Tours, M., on the precursory signs of insanity, 279

Morphia salts, utility of, 102

„ in intercostal neuralgia, 195

„ in vomiting, 165

„ applied to the denuded skin, 225

Moxas, in cardialgia, 227

Mucous flows, import of, at the c. of life, 64

„ relief afforded by, 64

„ critical value of, 64

Mucus, regurgitation of, 221

Mustard poultices, 112

Mutilation of the neck of the womb, 152

N.

- NATURAL history of the c. of life indicates the best mode of treating its diseases, 82
- Nervous diseases, erroneously attributed to plethora, 80
- „ theory of diseases of the c. of life, 81, 273
- „ type of woman at the c. of life, 31
- „ women most liable to diseases of the c. of life, 73
- Nervousness and morbid irritability, 230
- „ various modes of, 231
- „ frequency of, at the c. of life, 231
- Nettlerash, 181
- Neuralgic affections of the c. of life, 183
- „ „ after cessation, 183
- „ „ of the eyes, 196
- „ „ relieved by counter stimulants, 112
- „ „ treated by caloric, 112
- „ „ commonly called muscular rheumatism, 198
- Neurosis of the vagus nerve, 216
- Noises in the ears, 197
- Nux-vomica, in cardialgia, 227
- Nymphomania, frequency of, 142
- „ pudendal diseases, causing, 143
- „ treatment of, 144

O.

- ESOPHAGUS, spasmodic structure of, 221
- Oinomania, 269
- Onanism, cardialgia induced by, 220
- Opium, its most useful preparations, 102
- Otorrhoea, 288
- Ovaria, induce hysteria before puberty and after cessation, 81
- „ pseudo-narcotism, 81
- „ continuous action of, on the system, 81
- „ monthly influence of, on the system, 81
- „ influence of, long before the establishment of the m. flow, 81
- Ovarian evolution, the cause of puberty, 11
- „ involution, the cause of cessation, 11
- „ morbid influence, may cause cardialgia, 13, 274
- „ „ chlorosis, 13, 228
- „ „ vomiting, 14
- „ „ diarrhoea, 14
- „ „ globus hystericus, 14, 81, 275
- „ „ convulsions, 15, 274
- „ „ local anaesthesia, 15
- „ „ paralysis, 15
- „ „ delirium, 15, 274
- „ „ epilepsy, 275
- „ „ pseudo-narcotism, 15, 81
- „ „ temper, 15, 276
- „ „ perversion of moral instincts, 15, 276
- „ tumours at the c. of life, 158
- „ „ may be checked by the c. of life, 159
- „ „ may cause premature ovarian paralysis, 30
- „ „ treatment of, 159
- Over-lactation, causing pseudo-narcotism, 241
- „ „ insanity, 220
- Ovular theory, inconsistencies of the, 51

P.

- PARALYSIS, a symptom of morbid menstruation, 15, 275
 „ chronic, cured by hot irrigation baths, 116
 Paraplegia, pathology of, at the c. of life, 189
 „ intermittent with cardialgia, 190
 „ treatment of, 191
 Passions, the, always attended by ganglionic sensations, 277
 Pathology, general principles of, at the c. of life, 69
 „ of successive ages, 70
 Peasant women less liable to diseases of the c. of life, 78
 Pendulous abdomen, requiring an elastic belt, 124
 „ breasts, requiring support, 124
 Peppermint, essential oil of, for cardialgia, 225
 Periodical diarrhoea at the c. of life, 92
 „ headache at cessation, 232
 „ hemicrania, 233
 „ monthly phenomena after cessation, 55
 „ nervous apoplexy, 237
 Perspiration, importance and composition of, 62
 „ Lavoisier's estimate of loss by, 61
 „ Dr. Southwood Smith's estimate of loss by, 61
 „ Dr. Favre on the composition of, 61
 „ critical nature of, at the c. of life, 63
 „ monthly, at the c. of life, 63
 „ utility of wearing flannel for, at the c. of life, 63
 Physick, Dr., on camphor, 105
 Physiology of the c. of life, 9
 Piles, pathology of, 170
 Pitch-plasters, 112
 Plasters, utility of, 100—112
 Plethora, a cause of many diseases at the c. of life, 80
 Plethoric type at cessation, physiognomy of the, 31
 Pomme, on baths, 110
 Potassa fusa c. calce, its use and indispensability, 152
 „ „ dangerous in unskilful hands, 152
 Poussée, utility of, in chronic cutaneous affections, 115
 Pregnancy late in life mistaken for cessation, 37
 „ spurious, 41
 Prejudices, stubborn at the c. of life, 84
 Premature ovarian paralysis, 28
 Principles of treatment at the c. of life, 83
 „ pathology at the c. of life, 69
 Prolapsus of the womb, 154
 Prostitution not a cause of disease at the c. of life, 80
 Prurigo, 182
 „ pudendi, 104, 145
 Pseudo-narcotism, meaning of, 237
 „ at cessation, 238
 „ caused by the c. of life, 239
 „ generally allied to other cerebral symptoms, 240
 „ called hysteria, 240
 „ description of, 241
 „ ordinary symptoms of, 241
 „ after connexion, 241
 „ during pregnancy, 241
 „ „ lactation, 241
 „ at menstrual periods, 15
 „ before puberty and after cessation, 81
 Puberty and cessation compared, 76

- Puberty, unusual suffering at, a premonitory sign of disease at cessation, 74
 „ influence of early or late, on the duration of the m. flow, 47
 Puff-powders, utility of, 121
 Purgatives, utility of, indicated by diarrhoea at cessation, 91
 „ popular use of, 92
 „ choice of, at the c. of life, 93

Q.

- QUAIN, Dr., on pulmonary complaints, 287
 Quinine, sulphate of, in cardialgia, 226

R.

- RASPAIL, on camphor, 105
 „ his sedative lotion, 106
 Rectum, inflammation of the, 171
 „ „ treatment of, 173
 Rectum, sedatives given by the, at the c. of life, 101
 „ giving medicines by the, known to the ancients, 102
 Reid, Dr., on mental derangement, 267
 Remittent menstruation, 135
 Reproductive organs, hygiene of, at the c. of life, 118
 „ „ appropriate stimulus of, no longer required at the c.
 life, 118
 Rheumatic fever and joints, 285
 „ pains, 198
 „ „ treatment of, 198
 Ruptured varicose veins, 287

S.

- SCIATICA, 191
 „ treatment of, by sudorifics, 193
 Sea-bathing objectionable at the c. of life, 113
 Sedatives, anaphrodisiacal action of, 99
 „ at the c. of life, 97
 „ Sir H. Holland's opinion of, 97
 „ „ „ applied externally, 100
 „ modes of external application, 100
 „ exhibition of, by the rectum, 100
 „ advantages of their local application, 100, 147, 173, 224, 281, 283
 Sexual impulse at the c. of life, frequently a sign of disease, 119
 Shampooing useful at the c. of life, 124
 Shearman, Dr., on neural pathology, 217
 „ on alkalies at the c. of life, 96
 Silver, nitrate of, in cardialgia, 226
 Sinking dyspepsia, 216
 Skin, agency of the, at the c. of life, 57
 Sleep, utility of, for the thin and nervous, 127
 „ a physiological phenomenon, 245
 „ indispensable for the cure of nervous affections, 282
 Sleeplessness at cessation, 242
 „ at the c. of life and its alternations, 127
 Social position a cause of disease at the c. of life, 78
 Society, how influenced by women after cessation, 129
 Soporose affections at the c. of life, 244
 Soufre spring at Aix en Savoie, 114
 Spasmodic contraction of the diaphragm at cessation, 214
 „ „ intercostal muscles, 213
 „ stricture of the cesophagus, 221

- Spasms and inward spasms, 216
 Spermatorrhœa, cardialgia induced by, 220
 Spirits of ammonia in cardialgia, 226
 Statistics of suicide in France, 270
 „ the c. of life erroneously interpreted, 3
 Stimulants, dangerous at the c. of life, 123
 „ discreet use of, 123
 „ abusively taken to relieve epigastric pain, 224
 St. Simon spring at Aix en Savoie, 114
 Sudden news, danger of communicating, at the c. of life, 126
 „ nervous shocks, a cause of protracted menstruation, 24
 „ deaths, in full convalescence, 203
 „ „ intermittent fevers, 204
 „ „ the puerperal state, 204
 „ „ old age, 204
 „ „ more frequent since the disrepute of bleeding, 84
 „ stoppage of the m. flow a cause of disease at the c. of life, 77
 Sudorifics, in aphonia, 198
 „ beneficial at the c. of life, 108
 „ in sciatica, 193
 Suffocation from spasmodic contraction of the diaphragm, 215
 Sugar formed in the liver, 217
 „ found in the urine, 221
 Suicide at the c. of life, 270
 Sulphuric ether in cardialgia, 225
 Summary of the work, 289
 Supper at the c. of life, 123
 Supposed causes of disease at the c. of life, 73
 Sweats at the c. of life, 177
 „ pathology of, 178
 „ treatment of, 178
 „ cold, pathology of, 178.
 Syncope, definition of, 202

T.

- TABLE of contents, vii,
 „ cases, xix.
 Tables, list of, xv.
 Tartar-emetic ointment, 112
 Temper, 268
 Temperament a cause of disease at the c. of life, 73
 Temperature of the sedative baths, 110
 „ baths should be tested by the thermometer, 111
 Tepid baths useful at the c. of life, 121
 „ ‘Temps critique,’ 1
 Tertian type of cardialgia, 221
 Theory, indispensable to the medical practitioner, 271
 „ blood, of diseases of menstruation, 80, 272
 „ nervous, of diseases of menstruation, 81, 273
 „ of blushing, 59
 „ critical epochs, 3
 „ diseases of menstruation, 12, 80
 „ chemical heat, 59
 „ heat and its distribution, 58
 „ flushes, 59
 „ nervous heat, 59
 „ hysteria, 274
 „ insanity, 276
 „ irresistible impulses, 277
 Travelling advantageous at the c. of life, 127
 Turn of life, 1

U.

- ULCERATION of the neck of the womb, stopping the m. flow, 33
 " " " " producing flooding at the c. of life, 137
 " " " " during the dodging-time, 150
 " " os uteri, rare at the c. of life, 148
 " " " treatment of, 149
 " " " mutilation of, 152
 Uncontrollable peevishness, 268
 Urine, sugar in the, 221
 Uterine affections at the c. of life, 73, 151
 " " " " treatment of, 151
 " catarrh at the c. of life, 147
 " deviations, 153
 " fibrous tumours retard cessation, 154
 " " " treatment of, 155
 " hydatids, supposed to be the c. of life, 35
 " " rare at the c. of life, 158
 " polypi, 24
 " " at cessation, 154
 " " mistaken for cessation, 34

V.

- VAGINAL injections useful at the c. of life, 121
 Vaginitis, treatment of, 142
 Valleix's treatment of neuralgia, 112
 Vapour baths in neuralgic affections of the skin, 198
 Varicose veins, 5, 287
 Veratria in cardialgia, 225
 Vesical affections at the c. of life, 159
 Vichy, mineral waters of, effects of in biliary affections, 165
 Vomiting at the c. of life, 165
 " " treatment of, 165
 Vulvo-vaginal neuralgia at the c. of life, 146

W.

- WALKING exercise the best at the c. of life, 126
 Ward's essence for the headache, 281
 Warm sea-baths useless at the c. of life, 113
 Waterbrash, 161
 Weakness of a peculiar organ a cause of disease at the c. of life, 73
 " constitution at the c. of life, 73
 Wilson, Mr. Erasmus, on cutaneous affections of the c. of life, 18
 Winslow, Dr. Forbes, on insanity at the c. of life, 255
 Woman's mission after cessation, 129
 Womb, ulceration of, causing the stoppage of the m. flow, 33
 Women dying in England from childbirth after 45, 23
 " less liable to sudden death, 7
 " present most instances of longevity, 7

Z.

- ZINC, oxide of, 226
 " hydrocyanate of, 226

THE END



OPINIONS OF THE PRESS

ON

THE FIRST EDITION.

"If a work be required to instruct mothers on the mode in which they ought to watch over the health, moral and corporeal, of the young persons committed to their care, the present treatise, by Dr. Tilt, may be recommended as well calculated for the purpose. It is short and condensed ; does not dwell too much on collateral subjects ; and the information it conveys comes at once to the direct object. The author also shows that he is deeply impressed with the importance of the duty he undertakes, and displays both sincerity and judgment in the manner in which he gives his advice."—*Edinburgh Quarterly Medical and Surgical Journal*.

"The volume now under notice is not, like too many others on similar topics, addressed to non-professional readers, but is specially adapted to the wants of medical practitioners. There is a large class of these, including the younger members of the profession, to whom the experience of a senior on the delicate and difficult subjects here treated must be peculiarly acceptable. We think our readers will concur in our estimate of the work, that in presenting in a condensed form, in clear and elegant language, many very valuable facts in the history and pathology of menstruation, it will be found an acceptable treatise for consultation. We feel satisfied that the author has in no degree exaggerated the evils arising from a neglect of hygiene precautions, and that he has not overstated the importance of a more vigilant attention to the preservation of the health of women."—*London Medical Gazette*.

"This will prove a very useful little book. It is elegantly written, and contains much useful and valuable information. If the suggestions offered by its author were acted upon, what an amount of human suffering would be prevented !"—*Journal of Psychological Medicine*.

"Dr. Tilt, in the essay before us, has entered upon an hitherto almost untrodden path. We hope he may follow up the subject, as, from the specimen he has given, it could scarcely have fallen into more able hands ; and we trust to meet him again in the same field of inquiry."—*Dublin Medical Press*.

"Dr. Tilt's work presents a more precise and consistent sketch of the pathology of what is termed 'the critical age of women' than we have yet met with."—*American Journal of Medical Science*.

ON DISEASES OF WOMEN

AND

OVARIAN INFLAMMATION,

IN RELATION TO MORBID MENSTRUATION, STERILITY,
 PELVIC TUMOURS, AND AFFECTIONS OF THE WOMB.*

 COMMENTS ON THE FIRST EDITION.

"Dr. Tilt's views on the pathology of the ovaries are likely to modify and improve the present treatment of uterine disease. He could not have selected a subject more difficult as to its practical details; and we regard it as a seasonable and valuable publication, well deserving the attentive perusal of those who are interested in obstetric medicine."—*British and Foreign Medical Review*.

"We rejoice to see that physicians of weight and authority are beginning to look beyond the os and cervix uteri for the causes of disease in these parts. Already a reformation somewhat analogous to what Abernethy effected for surgical diseases has commenced, and we feel assured that Dr. Tilt's work will powerfully co-operate in helping it forward, and in placing the pathology and therapeutics of diseases of the female generative organs upon a sound and permanent basis."—*Dublin Quarterly Review*.

"From a careful perusal of Dr. Tilt's work, we feel fully justified in affirming that in none other will be found so complete an account of the various ways in which sterility is produced by the action of inflammation on the ovarian tissues; of the importance of ovarian peritonitis as a cause of disordered menstruation; or of the influence of ovarian inflammation in the production of uterine disease: facts forcibly exemplified, and shown to be not mere conventional probabilities, but events of common occurrence. Investigating a subject beset with extreme difficulties, Dr. Tilt has given the profession a work of real practical value, which we consider to be indispensable to all those who attend to the diseases of women."—*Quarterly Medical Recorder*.

"In our opinion the work of Dr. Tilt is one calculated to do much good. By collecting and arranging in a systematic form the facts and observations in relation to the affections of which he treats, he deserves our thanks; and by the additional observations he has furnished, and the views he has advanced, he has unquestionably prepared the way for a more accurate acquaintance with

* London: Churchill, New Burlington-street.

ovarian pathology, and a more rational management of some of the most distressing and heretofore unmanageable of the diseases of the reproductive organs in the female."—*American Journal of Medical Sciences*.

"We recommend the work of Dr. Tilt, both on account of the practical importance of the subject of which it treats, and the lucid and logical manner in which the novel doctrines advanced in it are deduced from premises that are certainly undeniable."—*Lancet*.

"Dr. Tilt has, we think, brought forward sufficient evidence of the important part which inflammation of the ovaries exerts in occasioning derangement or disorder of menstruation; and his work is calculated to prove of much service, by calling the attention of practitioners to these organs. We recommend it to our readers, convinced that the principles laid down in it will lead to a more correct, and therefore a safer line of practice in a large number of cases."—*Dublin Medical Press*.

COMMENTS ON THE SECOND EDITION.

"Had the production of Dr. Tilt been merely a second edition, we should observe that the author has thoroughly reconsidered the subjects of his previous investigation, enriched a former work with many new facts, and added chapters on the diagnosis of acute and subacute ovaritis. A chapter on the phenomena of sanguineous pelvic tumours is also worthy of attention. Dr. Tilt has given this edition a wider scope, devoting the first 150 pages to the execution of a plan already suggested in the preface to the first edition. Considering the perfect comprehension of the process of menstruation as the keystone of the pathology of female diseases, the author has subjected each symptom of menstruation to a searching inquiry, carefully following the changes by which from healthy it becomes morbid. He then shows to what extent each symptom is met with in the various acts of reproductive life. For instance, in studying one of the well-known cerebral symptoms of menstruation—hysteria—after establishing the passage from the morbid irritability of the nervous system habitually attendant on each catamenial period, with the various perversions of nervous action which characterise hysteria, Dr. Tilt indicates to what an extent hysterical phenomena may be expected when menstruation first occurs, when the function is regularly established, and then inquires into the frequency of hysteria as a result of connexion, pregnancy, parturition, lactation, and as a subjective symptom of ovarian and of uterine disease. The therapeutical indications of the hysterical diathesis, of hysterical fits, and hysterical apoplexy, are then clearly stated. By doing this in succession for each symptom of menstruation, Dr. Tilt has more accurately established the physiological and morbid effects of the reproductive organs on the system, and has laid the basis of more rational modes of treatment.

"Each chapter contains facts interesting both to the physiologist and the practitioner. Space, however, will only permit us to indicate the contents of the first chapters; our readers may from this form an idea of the nature of the work.

"The first chapter gives a succinct account of the theories of menstruation,

and leads to the conclusion that menstruation is certainly ovarian, but not necessarily ovular.

"The second chapter treats of the natural history of menstruation; embodies the statistical researches on which the author has been long engaged; corroborates those of Brierre de Boismont, and unpublished statistics from Sweden.

"Type in menstruation is the title of the third chapter; and if the author's observations are correct, menstruation should always be considered morbid when it occurs more than once a month.

"In the fourth chapter the nature of the ovarian nîsus, or of the menstrual force, is considered, and admitted to be a manifestation of a power inherent in the ganglionic nervous system.

"The fifth chapter, on the ganglionic nervous symptom of menstruation, contains much that is new in the treatment of unclassified symptoms of ill-health, such as the heats and flushes by which women are often much annoyed; various singular epigastric morbid phenomena, chlorosis, &c.

"The sixth is a long chapter, and contains a very important account of the cerebral symptoms of menstruation; and the author's reflections on the production of insanity deserve to be weighed by mental pathologists. The spinal symptoms are considered in the following chapter; and in the eighth the critical discharges of menstruation come under discussion. The ninth chapter is occupied by all that relates to the sanguineous discharge of menstruation. The mucous discharges form the subject of the tenth chapter, and it will be read with interest now that uterine pathology excites so much attention.

"The eleventh chapter contains much interesting matter respecting the intestinal discharges of menstruation; and the twelfth, an account of the influence of the menstrual nîsus on the skin and the kidneys. The work concludes with a copious general index and a bibliographical index of all recent contributors to ovarian pathology. This last addition has been too much neglected by medical authors, who might imitate Dr. Tilt's manner of compiling so useful a guide to future research.

"We have now rapidly accompanied the author through the first part of this work, and we think that its perusal will convince our readers that it exceeds in value his former contributions to medical science. The second part received our meed of approbation when it appeared before the public as a first edition, and the whole now together embodies a vast collection of facts, re-cast, condensed, and judiciously used, while much is *suggested* on unsettled points which will doubtless stimulate the thoughts and inquiries of those engaged in similar pursuits.

"In conclusion, we believe that Dr. Tilt's *Diseases of Women* will be considered an addition valuable to medical libraries. If we are not deceived, it will soon find favour with the junior members of the profession, inasmuch as it contains what we should call *the first principles of female pathology*."—*Lancet*.

"The laws and rules of each of the phenomena of menstruation are pointed out—the consideration of the exceptions being reserved until afterwards—the various symptoms being discussed both in their physiological and pathological bearings. The causes which modify the period of first menstruation are admirably laid down and fully considered under the different heads of family, race, national customs, temperature, habitation, and civilisation. In this part of the

inquiry, the researches of Dr. Tilt have done much to remove many of the difficulties by which the subject was surrounded, while his industry in searching for the facts of others, and so basing his conclusions upon results drawn from large statistics, are beyond all praise. The same remarks apply to the third and fourth chapters on type in menstruation, and on the ovarian nusus, which well deserve perusal unabridged. Having, then, attempted to give our readers some idea of the most important points in the new matter brought forward by Dr. Tilt, it only remains for us to recommend the entire treatise to their careful perusal."—*Medical Times and Gazette*.

"The application of the recently discovered truths relating to the functions of the ovaries, and to the pathology of these bodies, could not have been long deferred; and Dr. Tilt has interposed at the right time to attach the connecting links, and to complete our knowledge of these important organs. This work has reached a second edition, a proof of the estimation in which the author's views have been held by the profession. It is written with taste and elegance, and is a masterly *exposé* of the subject. The phenomena of menstruation are investigated with great care, and are lucidly discriminated and explained. The additions to the second edition much enhance the value of the work."—*Medical Circular*.

ELEMENTS OF HEALTH

AND

PRINCIPLES OF FEMALE HYGIENE.*

"There are two kinds of popular medical writers. Those who introduce the public into the sanctuary of medical science, and tempt them to poison themselves by injudiciously taking medicines; and those who seek to improve the sanitary state of mankind by diffusing a knowledge of the general laws which govern nature, in relation to living creatures, and by imparting those precepts of physiology which, if duly observed, would prevent disease. The first class of writers we heartily condemn. To illustrate the second we point to the names of Drs. James Johnson, Mayo, and, particularly, Dr. A. Combe, deeming them benefactors of the human race. Following in the footsteps of those just mentioned, is Dr. Tilt. In his *Elements of Health* he has successfully done for women what the others have done for men, and his work is a model for those who propose writing on similar subjects, for in a vast plan every subject receives comment in proportion to its importance, and is lucidly explained so as to bring conviction to every woman of ordinary capacity. The work is characterised by extreme delicacy of expression, a healthy tone of feeling, free from all mawkish leaning to the prejudices of the sex, and it is written in a style which rivets the attention and carries on the reader from page to page. Our space is claimed by professional subjects, so that we cannot review this book so completely as we could wish. We can merely trace its general plan and prevailing idea. Each successive period of seven years forms a chapter, in which the mental and moral progress of decay are sketched, while the physical is treated at full length. Food, sleep, exercise, clothing, occupations, are separately considered; and the chapter concludes with a brief account of the diseases which are common to each epoch, and of the indications heralding their approach, which render medical advice imperative. Dr. Tilt's prevailing idea seems to be, that further improvement in the sanitary condition of society is to be principally effected by giving women an insight into the laws to which they are subjected, as living beings and as women; their own health, the improvement of the human race, and the welfare of society being attainable by that means. The work seems also to commend itself to the profession by the careful manner in which is therein laid down the means of preventing that exaggeration of the nervous temperament, which is so fruitful a source of the diseases of women. In conclusion we shall

* London: Bohn, York-street, Covent-garden.

only add, that as Dr. Tilt's is the only work of the kind—at least, in English literature, we trust it will be considered an indispensable guide by persons to whom may be intrusted the sacred task of educating the present generation of children, who are necessarily to become our future generations of men and women.”—*Lancet*.

“In the *British and Foreign Medico-Chirurgical Quarterly Review* it was lately remarked that a treatise on female hygiene was much wanted; and all those engaged in general practice who have to contend daily with the ignorance and prejudices of women respecting themselves and their children will re-echo the assertion of our respected contemporary. Dr. Tilt has sought to fill up this desideratum; and we are anxious to be among the first to notice a book which originated in our columns. Two years ago, Dr. Tilt inserted in this journal some highly interesting papers on the right management of women at the critical periods of life. These papers have suggested to the author the present work, of which we intend briefly to sketch the outline. The work is divided into periods of seven years, and each period forms a chapter. Each chapter briefly notices the mental and moral development or decay, and the physical condition is treated with care. The food, clothing, exercise, and sleep, as regards each epoch, are passed in review; and the diseases to which women at each period are most liable are pointed out, as well as the most appropriate means of prevention. Every chapter is preceded and followed by tables showing the mortality of both sexes for each year successively, the mean duration of life, and its value for insurance purposes; calculations which derive importance from the fact of their having been made under the eye of Mr. Farr, of the Registrar-General's office. Such is the outline of a work which combines a vast amount of information in a small compass, and of which we regret that our space will not allow us to give extracts; it is much required, and will, doubtless, ere long, become as popular as those of the late lamented Dr. Combe. Perhaps no man is better calculated than Dr. Tilt to fill up this hiatus in medical literature: for few unite to the same extent great opportunities of observation with sterling common sense, a thorough love of his subject, and a lucid, correct, and lively style. We think the work will be found as useful to the practitioner as it is indispensable to those who are in any way connected with the education or responsibilities of women, for while, on the one hand, it is the best treatise on physical education with which we are acquainted, it also affords practitioners excellent advice respecting the prevention of nervous complaints, and, in fact, of all the diseases to which women are amenable from the peculiarities of their formation and habits.”—*Provincial Medical and Surgical Journal*.

“Dr. Tilt has chosen a subject which required great tact and delicacy for its treatment; and though such a work was much wanted, it has been this feeling probably which has deterred writers from entering on the field before. We think Dr. Tilt has succeeded. He has taken up most carefully all those departments of statistical inquiry which throw light on the differences that exist in the constitution and temperament of the sexes, and in all parts of his work has treated the subject in both a learned and a practical manner.”—*Athenæum*.

LONDON:
SAVILL AND EDWARDS, PRINTERS, CHANDOS STREET,
COVENT GARDEN.

A CLASSIFIED INDEX TO MR. CHURCHILL'S CATALOGUE.

ANATOMY.

	PAGE
Anatomical Remembrancer ..	3
Beale on Liver ..	5
Hassall's Micros. Anatomy ..	14
Holden's Human Osteology ..	15
Do. on Dissections ..	13
Jones' and Sieveking's Pathological Anatomy ..	17
MacLise's Surgical Anatomy ..	19
Paget's Catalogue ..	21
Sibson's Medical Anatomy ..	25
Waters' Anatomy of Lung ..	29
Wheeler's Handbook ..	30
Wilson's Anatomy ..	30

CHEMISTRY.

Abel & Bloxam's Handbook ..	3
Bowman's Practical Chemistry ..	7
Do. Medical do. ..	7
Fownes' Manual of Chemistry ..	12
Do. Actonian Prize ..	12
Do. Qualitative Analysis ..	12
Presentin's Chemical Analysis ..	12
Galloway's First Step ..	12
Do. Analysis ..	12
Griffiths' Four Seasons ..	13
Horsley's Chem. Philosophy ..	16
Jones.—Mulder on Wine ..	17
Odling's Practical Chemistry ..	21
Plattner on Blowpipe ..	22
Speer's Pathol. Chemistry ..	26

CLIMATE.

Barker on Worthing ..	4
Francis on Change of Climate ..	12
Hall on Torquay ..	14
Haviland on Climate ..	14
Lee on Climate ..	18
McClelland on Bengal ..	19
Martin (J. R.) on Tropical ..	20

DEFORMITIES, &c.

Bigg on Deformities ..	6
Bishop on Deformities ..	6
Do. Articulate Sounds ..	6
Brothurst on Spine ..	7
Do. on Clubfoot ..	7
Godfrey on Spine ..	13
Hare on Spine ..	14
Hingman on Hip Joint ..	16
Inman on Myalgia ..	16
Tamplyn on Spine ..	26

DENTISTRY.

Clark's Odontalgist ..	9
Gray on the Teeth ..	13
Odontological Soc. Transactions ..	21
Tomes' Dental Surgery ..	28

DISEASES of the URINARY and GENERATIVE ORGANS, and SYPHILIS.

	PAGE
Action on Urinary Organs ..	7
Do. on Reproductive Organs ..	3
Coote on Syphilis ..	10
Coulson on Bladder ..	10
Do. on Lithotomy ..	10
Egan on Syphilis ..	11
Gant on Bladder ..	13
Judd on Syphilis ..	17
Maunder on Chancre ..	20
Milton on Gonorrhoea ..	20
Parker on Syphilis ..	21
Wilson on Syphilis ..	31

DISEASES OF WOMEN AND CHILDREN.

Ballard on Infants and Mothers ..	4
Barker on Children ..	4
Bennet on Uterus ..	5
Do. on Uterine Pathology ..	5
Bird on Children ..	6
Brown on Women ..	7
Do. on Scarlatina ..	7
Eyre's Practical Remarks ..	11
Hood on Scarlet Fever ..	16
Lee's Ovarian & Uterine Diseases ..	18
Lee on Diseases of Uterus ..	18
Do. on Speculum ..	18
Rowe on Females ..	24
Smith on Lencorrhoea ..	25
Tilt on Diseases of Women ..	27
Do. on Change of Life ..	27
Underwood on Children ..	28
West on Women ..	29

HYGIENE.

Armstrong on Naval Hygiene ..	3
Beale's Laws of Health ..	5
Do. Health and Disease ..	5
Bennet on Nutrition ..	5
Blundell's Medicina Mechanica ..	7
Carier on Training ..	8
Chavasse's Advice to a Mother ..	9
Granville on Vichy ..	13
Hartwig on Sea Bathing ..	14
Do. Physical Education ..	14
Hufeland's Art ..	16
Lee's Watering Places of England ..	18
Do. do. Germany, France, and Switzerland ..	18
Lee's Rhenish Watering Places ..	18
Parkin on Disease ..	21
Pickford on Hygiene ..	22
Robertson on Diet ..	24
Rumsey's State Medicine ..	24
Wife's Domain ..	30
Wilson on Healthy Skin ..	31
Do. on Mineral Waters ..	31

MATERIA MEDICA and PHARMACY.

	PAGE
Bateman's Magnacopia ..	4
Beasley's Formulary ..	5
Do. Receipt Book ..	5
Do. Book of Prescriptions ..	5
Pereira's Selecta e Prescriptis ..	22
Pharmacopoeia Londinensis ..	22
Prescriber's Pharmacopoeia ..	22
Royle's Materia Medica ..	24
Spurgin's Materia Medica ..	26
Steggall's Materia Medica ..	26
Do. First Lines for Chemists ..	26
Stowe's Toxicological Chart ..	26
Taylor on Poisons ..	27
Wittstein's Pharmacy ..	27

MEDICINE.

Adams on Rheumatic Gout ..	3
Addison on Snpra-Renal Capsules ..	3
Addison on Cells ..	3
Barclay on Medical Diagnosis ..	4
Barlow's Practice of Medicine ..	4
Basham on Dropsy ..	4
Beale on Urine ..	5
Bird's Urinary Deposits ..	6
Bird on Charcoal ..	6
Brinton on Stomach ..	7
Do. on Ulcer of do. ..	7
Budd on the Liver ..	8
Do. on Stomach ..	8
Camplin on Diabetes ..	8
Chambers on Digestion ..	8
Davey's Ganglionic ..	11
Eyre on Stomach ..	11
Fuller on Rheumatism ..	12
Gairdner on Gout ..	13
Granville on Sudden Death ..	13
Gully's Simple Treatment ..	13
Habershon on Stomach ..	13
Do. on Mercury ..	13
Hall on Apnea ..	13
Hall's Observations ..	13
Harrison on Lead in Water ..	14
Hassall on Urine ..	14
Headland on Medicines ..	15
Hooper's Medical Dictionary ..	16
Hooper's Physician's Vade-Mecum ..	13
Hughes on Blood Disease ..	16
Inman's New Theory ..	16
Jones' Animal Chemistry ..	17
Langol on Scrofula ..	19
Marcet on Chronic Alcoholism ..	19
Peacock on Indisposition ..	21
Pryn on Yellow Fever ..	23
Roberts on Palsy ..	24
Robertson on Gout ..	24
Savory's Compendium ..	24
Seiple on Cough ..	24
Shaw's Remembrancer ..	25
Smee on Debility ..	25
Steggall's Medical Manual ..	26

CLASSIFIED INDEX.

MEDICINE—continued.

	PAGE
Steggall's Gregory's Conspectus	26
Do. Celsus	26
Thomas' Practice of Physic ..	27
Thudichum on Urine	28
Todd's Clinical Lectures ..	28
Weggs' Observations	29
Wells on Gout	29
What to Observe	19
Whitehead on Transmission ..	30
Williams' Principles	30
Wright on Headaches	31

MICROSCOPE.

Beale on Microscope in Medicine	5
Do. How to Work	5
Carpenter on Microscope	8
Schacht on do.	24

MISCELLANEOUS.

Action on Prostitution	3
Atkinson's Bibliography	4
Bascome on Epidemics	4
Bryce on Sebastopol	7
Cooley's Cyclopaedia	9
Forbes' Nature and Art in Disease	12
Gny's Hospital Reports	13
Haycock's Veterinary	14
Lane's Hydropathy	18
Lee on Homoeop. and Hydrop. ..	18
Marcet on Food	19
Massy on Recruits	20
Part's Case Book	21
Pettigrew on Superstitions	22

NERVOUS DISEASES AND INDIGESTION.

Carter on Hysteria	8
Child on Indigestion	9
Downing on Neuralgia	11
Hunt on Heartburn	16
Leared on Imperfect Digestion ..	18
Lobb on Nervous Affections ..	19
Radcliffe on Epilepsy	23
Reynolds on the Brain	23
Rowe on Nervous Diseases	24
Stevelling on Epilepsy	25
Turnbull on Stomach	28

OBSTETRICS.

Barnes on Placenta Prævia	4
Davis on Parturition	11
Kiwisch on Ovaries	9
Lee's Clinical Midwifery	18
Pretty's Aids during Labour	22
Priestley on Gravid Uterus	23
Ramsbotham's Obstetrics	23
Do. Midwifery	23
Sinclair & Johnston's Midwifery ..	25
Smellie's Obstetric Plates	25
Smith's Manual of Obstetrics ..	25
Swayne's Aphorisms	26
Waller's Midwifery	29

OPHTHALMOLOGY.

	PAGE
Cooper on Injuries of Eye	10
Do. on Near Sight	10
Dalrymple on Eye	10
Dixon on the Eye	11
Hogg on Ophthalmoscope	15
Holthouse on Strabismus	15
Do. on Impaired Vision	15
Jacob on Eye-ball	16
Jago on Ocular Spectres	16
Jones' Ophthalmic Medicine	17
Do. Defects of Sight	17
Do. Eye and Ear	17
Nunneley on the Organs of Vision ..	21
Walton on Ophthalmic	29

PHYSIOLOGY.

Carpenter's Human	8
Do. Comparative	8
Do. Manual	8
Cottle's Human	10
Heale on Vital Causes	15
Hilton on the Cranium	15
Richardson on Coagulation	23
Virchow's Cellular Pathology ..	9

PSYCHOLOGY.

Anstin on Paralysis	4
Backnill and Tuke's Psychological Medicine	8
Burgess on Madness	7
Burnett on Insanity	9
Conolly on Asylums	9
Davey on Nature of Insanity	11
Dunn's Physiological Psychology	11
Hood on Criminal Lunatics	16
Millington on Treatment of Insane	20
Monro on Private Asylums	20
Noble on Mind	20
Williams (J.) on Insanity	30
Williams (J. H.) Unsoundness of Mind	30
Winslow on the Brain	31
Do. Letisimian Lectures	31

PULMONARY and CHEST DISEASES, &c.

Addison on Healthy and Diseased Structure	3
Billing on Lungs and Heart	6
Blakiston on the Chest	6
Bright on the Chest	7
Cotton on Consumption	10
Do. on Stethoscope	10
Davies on Lungs and Heart	11
Doell on the Chest	11
Fenwick on Consumption	11
Laennec on Auscultation	18
Markham on Heart	20
Richardson on Consumption	23
Salter on Asthma	24
Skoda on Auscultation	20
Thompson on Consumption	27
Timms on Consumption	28
Turnbull on Consumption	28
Weber on Auscultation	29

SCIENCE.

	PAGE
Baxter on Organic Polarity	4
Bird's Natural Philosophy	6
Burnett's Philosophy of Spirits ..	8
Craig on Electric Tension	10
Garner's Entherapeia	13
Hardwich's Photography	14
Hinds' Harmonies	15
Jones on Vision	17
Do. on Body, Sense, and Mind ..	17
Mayne's Lexicon	20
Nonrse's Students' Tables	21
Price's Photographic Manipulation ..	22
Rainey on Shells	23
Reynold's Animal Electricity	23
Taylor's Medical Jurisprudence ..	27
Vestiges of Creation	28
Seguel to ditto	28
Unger's Botanical Letters	29

SURGERY.

Adams on Tendons	3
Do. Subcutaneous Surgery	3
Ashton on Rectum	3
Bellingham on Aneurism	5
Bigg on Artificial Limbs	6
Bishop on Bones	6
Bryant on Joints	7
Chapman on Ulcers	9
Do. Varicose Veins	9
Cooper (Sir A.) on Testis	9
Do. (S.) Surg. Dictionary	10
Curling on Rectum	10
Do. on Testis	10
Druitt's Surgery	11
Fergusson's Surgery	12
Fraser on Chest	12
Gibb on Throat	13
Higginbottom on Nitrate of Silver ..	15
Hodgson on Prostate	15
James on Hernia	17
Jordan's Clinical Surgery	17
Lawrence on Raptures	18
Liston's Surgery	19
Macleod's Surgery of the Crimea ..	19
Macleod on Fractures	19
Nunneley on Erysipelas	21
Pemberton on Melanosis	22
Pirie's Surgery	22
Smith on Stricture	25
Do. on Hemorrhoids	25
Snow on Chloroform	25
Steggall's Surgical Manual	26
Teale on Amputation	27
Thompson on Stricture	27
Do. on Prostate	27
Toynbee on Ear	28
Waide on Stricture	29
Watson on the Larynx	29
Williamson on Gunshot Injuries ..	30
Wilson on the Skin	30
Do. Portraits of Skin Diseases ..	31
Yeasley on Deafness	31
Do. on Throat	31

London, New Burlington Street,
November, 1860.

MR. CHURCHILL'S
Publications,
IN
MEDICINE, SURGERY,
AND
SCIENCE.



"It would be unjust to conclude this notice without saying a few words in favour of Mr. Churchill, from whom the profession is receiving, it may be truly said, the most beautiful series of Illustrated Medical Works which has ever been published."—*Lancet*.

"All the publications of Mr. Churchill are prepared with so much taste and neatness, that it is superfluous to speak of them in terms of commendation."—*Edinburgh Medical and Surgical Journal*.

"No one is more distinguished for the elegance and *recherché* style of his publications than Mr. Churchill."—*Provincial Medical Journal*.

"Mr. Churchill's publications are very handsomely got up: the engravings are remarkably well executed."—*Dublin Medical Press*.

"The typography, illustrations, and getting up are, in all Mr. Churchill's publications, most beautiful."—*Monthly Journal of Medical Science*.

"Mr. Churchill's illustrated works are among the best that emanate from the Medical Press."—*Medical Times*.

"We have before called the attention of both students and practitioners to the great advantage which Mr. Churchill has conferred on the profession, in the issue, at such a moderate cost, of works so highly creditable in point of artistic execution and scientific merit."—*Dublin Quarterly Journal*.

MR. CHURCHILL is the Publisher of the following Periodicals, offering to Authors a wide extent of Literary Announcement, and a Medium of Advertisement, addressed to all Classes of the Profession. COMMUNICATIONS, BOOKS for REVIEW, addressed to the respective Editors, are received and duly forwarded by Mr. Churchill.

**THE BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW;
OR,
QUARTERLY JOURNAL OF PRACTICAL MEDICINE.**

Price Six Shillings. Nos. I. to LII.

**THE QUARTERLY JOURNAL OF MICROSCOPICAL
SCIENCE.**

Edited by EDWIN LANKESTER, M.D., F.R.S., F.L.S., and GEORGE BUSE, F.R.C.S.E.,
F.R.S., F.L.S. Price 4s. Nos. I. to XXXIII.

THE MEDICAL TIMES AND GAZETTE.

Published Weekly, price Sevenpence, or Stamped, Eightpence.
Annual Subscription, £1.10s., or Stamped, £1.14s. 8d., and regularly forwarded to all parts
of the Kingdom.

The MEDICAL TIMES AND GAZETTE is favoured with an amount of Literary and Scientific support which enables it to reflect fully the progress of Medical Science, and insure for it a character, an influence, and a circulation possessed at the present time by no Medical Periodical.

**THE HALF-YEARLY ABSTRACT OF THE
MEDICAL SCIENCES.**

Being a Digest of the Contents of the principal British and Continental Medical Works; together with a Critical Report of the Progress of Medicine and the Collateral Sciences. Edited by W. H. RANKING, M.D., Cantab., and C. B. RADCLIFFE, M.D., Lond. Post 8vo. cloth, 6s. 6d. Vols. I. to XXXI.

**THE JOURNAL OF PSYCHOLOGICAL MEDICINE
AND MENTAL PATHOLOGY.**

Being a Quarterly Review of Medical Jurisprudence and Insanity. Edited by FORBES WINSLOW, M.D. Price 3s. 6d. Nos. I. to XX. *New Series.*

THE PHARMACEUTICAL JOURNAL.

EDITED BY JACOB BELL, F.L.S., M.R.I.

New Series. Published Monthly, price One Shilling.

* * Vols. I. to XIX., bound in cloth, price 12s. 6d. each.

THE BRITISH JOURNAL OF DENTAL SCIENCE.

Published Monthly, price One Shilling. Nos. I. to LII.

THE DUBLIN MEDICAL PRESS.

Published Weekly, Stamped, price Sixpence, free to any part of the Empire.

THE LONDON AND PROVINCIAL MEDICAL DIRECTORY.

Published Annually. 12mo. cloth, 8s. 6d.

MR. F. A. ABEL, F.C.S., & MR. C. L. BLOXAM.

HANDBOOK OF CHEMISTRY: THEORETICAL, PRACTICAL, AND TECHNICAL. Second Edition. 8vo. cloth, 15s.

MR. ACTON, M.R.C.S.

A PRACTICAL TREATISE ON DISEASES OF THE URINARY AND GENERATIVE ORGANS IN BOTH SEXES. Third Edition. 8vo. cloth, £1. 1s. With Plates, £1. 11s. 6d. The Plates alone, limp cloth, 10s. 6d.

THE FUNCTIONS AND DISORDERS OF THE REPRODUCTIVE ORGANS IN YOUTH, IN ADULT AGE, AND IN ADVANCED LIFE. Considered in their Physiological, Social, and Psychological Relations. Second Edition. 8vo. cloth, 7s.

PROSTITUTION: Considered in its Moral, Social, and Sanitary Bearings, with a View to its Amelioration and Regulation. 8vo. cloth, 10s. 6d.

DR. ADAMS, A.M.

A TREATISE ON RHEUMATIC GOUT; OR, CHRONIC RHEUMATIC ARTHRITIS. 8vo. cloth, with a Quarto Atlas of Plates, 21s.

MR. WILLIAM ADAMS, F.R.C.S.

ON THE REPARATIVE PROCESS IN HUMAN TENDONS AFTER SUBCUTANEOUS DIVISION FOR THE CURE OF DEFORMITIES. With Plates. 8vo. cloth, 6s.

SKETCH OF THE PRINCIPLES AND PRACTICE OF SUBCUTANEOUS SURGERY. 8vo. cloth, 2s. 6d.

DR. ADDISON.

ON THE CONSTITUTIONAL AND LOCAL EFFECTS OF DISEASE OF THE SUPRA-RENAL CAPSULES. 4to. cloth. Coloured Plates, 21s.

DR. WILLIAM ADDISON, F.R.S.

CELL THERAPEUTICS. 8vo. cloth, 4s.

ON HEALTHY AND DISEASED STRUCTURE, AND THE TRUE PRINCIPLES OF TREATMENT FOR THE CURE OF DISEASE, ESPECIALLY CONSUMPTION AND SCROFULA, founded on MICROSCOPICAL ANALYSIS. 8vo. cloth, 12s.

THE ANATOMICAL REMEMBRANCER; OR, COMPLETE POCKET ANATOMIST. Fifth Edition, carefully Revised. 32mo. cloth, 3s. 6d.

DR. ALEXANDER ARMSTRONG, R.N.

OBSERVATIONS ON NAVAL HYGIENE AND SCURVY. More particularly as the latter appeared during a Polar Voyage. 8vo. cloth, 5s.

MR. T. J. ASHTON.

ON THE DISEASES, INJURIES, AND MALFORMATIONS OF THE RECTUM AND ANUS. Third Edition. 8vo. cloth, 8s.

MR. ATKINSON.

MEDICAL BIBLIOGRAPHY. Vol. I. Royal 8vo. 16s.

MR. THOS. J. AUSTIN, M.R.C.S. ENG.

- A PRACTICAL ACCOUNT OF GENERAL PARALYSIS:
Its Mental and Physical Symptoms, Statistics, Causes, Seat, and Treatment. 8vo. cloth, 6s.

MR. THOMAS BALLARD, M.R.C.S.

- A NEW AND RATIONAL EXPLANATION OF THE DISEASES PECULIAR TO INFANTS AND MOTHERS; with obvious Suggestions for their Prevention and Cure. Post 8vo. cloth, 4s. 6d.

DR. BARCLAY.

- A MANUAL OF MEDICAL DIAGNOSIS. Second Edition.
Foolscap 8vo. cloth, 8s. 6d.

DR. T. HERBERT BARKER.

- ON THE HYGIENIC MANAGEMENT OF INFANTS AND CHILDREN. 8vo. cloth; 5s.

DR. W. G. BARKER.

- ON THE CLIMATE OF WORTHING: its Remedial Influence in Disease, especially of the Lungs. Crown 8vo. cloth, 3s.

DR. BARLOW.

- A MANUAL OF THE PRACTICE OF MEDICINE. Fcap. 8vo. cloth, 12s. 6d.

DR. BARNES.

- THE PHYSIOLOGY AND TREATMENT OF PLACENTA PRÆVIA; being the Lettsomian Lectures on Midwifery for 1857. Post 8vo. cloth, 6s.

DR. BASCOMBE.

- A HISTORY OF EPIDEMIC PESTILENCES, FROM THE EARLIEST AGES. 8vo. cloth, 8s.

DR. BASHAM.

- ON DROPSY, CONNECTED WITH DISEASE OF THE KIDNEYS (MORBUS BRIGHTII), and on some other Diseases of those Organs, associated with Albuminous and Purulent Urine. Illustrated by numerous Drawings from the Microscope. 8vo. cloth, 9s.

MR. BATEMAN.

- MAGNACOPIA: A Practical Library of Profitable Knowledge, communicating the general Minutiae of Chemical and Pharmaceutic Routine, together with the generality of Secret Forms of Preparations; including Concentrated Solutions of Camphor and Copaiba in Water, Mineral Succedaneum, Marmoratum, Silicia, Terro-Metallicum, Pharmaceutic Condensations, Prismatic Crystallization, Crystallized Aromatic Salt of Vinegar, Spa Waters; newly-invented Writing Fluids; Etching on Steel or Iron; with an extensive Variety of *et cætera*. Third Edition. 18mo. 6s.

MR. H. F. BAXTER, M.R.C.S.L.

- ON ORGANIC POLARITY; showing a Connexion to exist between Organic Forces and Ordinary Polar Forces. Crown 8vo. cloth, 5s.

MR. LIONEL J. BEALE, M.R.C.S.

I.

THE LAWS OF HEALTH IN THEIR RELATIONS TO MIND AND BODY. A Series of Letters from an Old Practitioner to a Patient. Post 8vo. cloth, 7s. 6d.

II.

HEALTH AND DISEASE, IN CONNECTION WITH THE GENERAL PRINCIPLES OF HYGIENE. Fcap. 8vo., 2s. 6d.

DR. BEALE, F.R.S.

I.

HOW TO WORK WITH THE MICROSCOPE. Crown 8vo. cloth, 5s. ILLUSTRATIONS TO THE ABOVE, WITH DESCRIPTION, 1s. 6d.

II.

THE MICROSCOPE, IN ITS APPLICATION TO PRACTICAL MEDICINE. With a Coloured Plate, and 270 Woodcuts. Second Edition. 8vo. cloth, 14s.

III.

ON THE ANATOMY OF THE LIVER. Illustrated with 66 Photographs of the Author's Drawings. 8vo. cloth, 6s. 6d.

IV.

ILLUSTRATIONS OF THE SALTS OF URINE, URINARY DEPOSITS, and CALCULI. 37 Plates, containing upwards of 170 Figures copied from Nature, with descriptive Letterpress. 8vo. cloth, 9s. 6d.

MR. BEASLEY.

I.

THE BOOK OF PRESCRIPTIONS; containing 3000 Prescriptions. Collected from the Practice of the most eminent Physicians and Surgeons, English and Foreign. Second Edition. 18mo. cloth, 6s.

II.

THE DRUGGIST'S GENERAL RECEIPT-BOOK: comprising a copious Veterinary Formulary and Table of Veterinary Materia Medica; Patent and Proprietary Medicines, Druggists' Nostrums, &c.; Perfumery, Skin Cosmetics, Hair Cosmetics, and Teeth Cosmetics; Beverages, Dietetic Articles, and Condiments; Trade Chemicals, Miscellaneous Preparations and Compounds used in the Arts, &c.; with useful Memoranda and Tables. Fourth Edition. 18mo. cloth, 6s.

III.

THE POCKET FORMULARY AND SYNOPSIS OF THE BRITISH AND FOREIGN PHARMACOPŒIAS; comprising standard and approved Formulæ for the Preparations and Compounds employed in Medical Practice. Seventh Edition, corrected and enlarged. 18mo. cloth, 6s.

DR. O'B. BELLINGHAM.

ON ANEURISM, AND ITS TREATMENT BY COMPRESSION. 12mo. cloth, 4s.

DR. HENRY BENNET.

I.

NUTRITION IN HEALTH AND DISEASE. Post 8vo. cloth, 5s.

II.

A PRACTICAL TREATISE ON INFLAMMATION AND OTHER DISEASES OF THE UTERUS. Third Edition, revised, with Additions. 8vo. cloth, 12s. 6d.

III.

A REVIEW OF THE PRESENT STATE OF UTERINE PATHOLOGY. 8vo. cloth, 4s.

MR. HENRY HEATHER BIGG.

I.
THE MECHANICAL APPLIANCES NECESSARY FOR THE
 TREATMENT OF DEFORMITIES. Post 8vo. cloth, 4s.

II.
ARTIFICIAL LIMBS; THEIR CONSTRUCTION AND APPLI-
 CATION. With Engravings on Wood. 8vo. cloth, 3s.

DR. BILLING, F.R.S.

ON DISEASES OF THE LUNGS AND HEART. 8vo. cloth, 6s.

DR. GOLDING BIRD, F.R.S.

I.
URINARY DEPOSITS; THEIR DIAGNOSIS, PATHOLOGY,
 AND THERAPEUTICAL INDICATIONS. With Engravings on Wood. Fifth
 Edition. Post 8vo. cloth, 10s. 6d.

II.
ELEMENTS OF NATURAL PHILOSOPHY; being an Experimental
 Introduction to the Study of the Physical Sciences. Illustrated with numerous Engrav-
 ings on Wood. Fifth Edition. By GOLDING BIRD, M.D., F.R.S., and CHARLES
 BROOKE, M.B. Cantab., F.R.S. Fcap. 8vo. cloth, 12s. 6d.

MR. P. HINCKES BIRD, F.R.O.S.

PRACTICAL TREATISE ON THE DISEASES OF CHILDREN
 AND INFANTS AT THE BREAST. Translated from the French of M. BOUCHUT,
 with Notes and Additions. 8vo. cloth, 20s.

MR. JAMES BIRD.

VEGETABLE CHARCOAL: its MEDICINAL and ECONOMIC PRO-
 PERTIES; with Practical Remarks on its Use in Chronic Affections of the Stomach
 and Bowels. Second Edition, 8vo. cloth, 3s. 6d.

MR. BISHOP, F.R.S.

I.
ON DEFORMITIES OF THE HUMAN BODY, their Pathology
 and Treatment. With Engravings on Wood. 8vo. cloth, 10s.

II.
ON ARTICULATE SOUNDS, AND ON THE CAUSES AND
 CURE OF IMPEDIMENTS OF SPEECH. 8vo. cloth, 4s.

III.
LETTSONIAN LECTURES ON THE PHYSICAL CONSTI-
 TUTION, DISEASES AND FRACTURES OF BONES. Post 8vo., 2s. 6d.

DR. BLAKISTON, F.R.S.

PRACTICAL OBSERVATIONS ON CERTAIN DISEASES OF
 THE CHEST; and on the Principles of Auscultation. 8vo. cloth, 12s.

DR. JOHN W. F. BLUNDELL.

MEDICINA MECHANICA; or, the Theory and Practice of Active and Passive Exercises and Manipulations in the Cure of Chronic Disease. Post 8vo. cloth, 6s.

MR. JOHN E. BOWMAN.

I.

PRACTICAL CHEMISTRY, including Analysis. With numerous Illustrations on Wood. Third Edition. Foolsap 8vo. cloth, 6s. 6d.

II.

MEDICAL CHEMISTRY; with Illustrations on Wood. Third Edition. Fcap. 8vo. cloth, 6s. 6d.

DR. JAMES BRIGHT.

ON DISEASES OF THE HEART, LUNGS, & AIR PASSAGES; with a Review of the several Climates recommended in these Affections. Third Edition. Post 8vo. cloth, 9s.

DR. BRINTON.

I.

THE DISEASES OF THE STOMACH, with an Introduction on its Anatomy and Physiology; being Lectures delivered at St. Thomas's Hospital. Post 8vo. cloth, 10s. 6d.

II.

THE SYMPTOMS, PATHOLOGY, AND TREATMENT OF ULCER OF THE STOMACH. Post 8vo. cloth, 5s.

MR. BERNARD E. BRODHURST.

I.

ON LATERAL CURVATURE OF THE SPINE: its Pathology and Treatment. Post 8vo. cloth, with Plates, 3s.

II.

ON THE NATURE AND TREATMENT OF CLUBFOOT AND ANALOGOUS DISTORTIONS involving the TIBIO-TARSAL ARTICULATION. With Engravings on Wood. 8vo. cloth, 4s. 6d.

MR. ISAAC BAKER BROWN, F.R.C.S.

I.

ON SOME DISEASES OF WOMEN ADMITTING OF SURGICAL TREATMENT. With Plates, 8vo. cloth, 10s. 6d.

II.

ON SCARLATINA: its Nature and Treatment. Second Edition. Fcap. 8vo. cloth, 3s.

MR. THOMAS BRYANT, F.R.C.S.

ON THE DISEASES AND INJURIES OF THE JOINTS. CLINICAL AND PATHOLOGICAL OBSERVATIONS. Post 8vo. cloth, 7s. 6d.

DR. BRYCE.

ENGLAND AND FRANCE BEFORE SEBASTOPOL, looked at from a Medical Point of View. 8vo. cloth, 6s.

DR. BUDD, F.R.S.

I.
ON DISEASES OF THE LIVER.

Illustrated with Coloured Plates and Engravings on Wood. Third Edition. 8vo. cloth, 16s.

II.
ON THE ORGANIC DISEASES AND FUNCTIONAL DIS-
ORDERS OF THE STOMACH. 8vo. cloth, 9s.

DR. JOHN CHARLES BUCKNILL, & DR. DANIEL H. TUKE.

A MANUAL OF PSYCHOLOGICAL MEDICINE: containing
the History, Nosology, Description, Statistics, Diagnosis, Pathology, and Treatment of
Insanity. 8vo. cloth, 15s.

DR. BURGESS.

THE MEDICAL AND LEGAL RELATIONS OF MADNESS;
showing a Cellular Theory of Mind, and of Nerve Force, and also of Vegetative Vital
Force. 8vo. cloth, 7s.

DR. BURNETT.

I.
THE PHILOSOPHY OF SPIRITS IN RELATION TO MATTER.
8vo. cloth, 9s.II.
INSANITY TESTED BY SCIENCE. 8vo. cloth, 5s.

DR. JOHN M. CAMPLIN, F.L.S.

ON DIABETES, AND ITS SUCCESSFUL TREATMENT.
Second Edition. Fcap. 8vo. cloth, 3s. 6d.

MR. ROBERT B. CARTER, M.R.C.S.

I.
ON THE INFLUENCE OF EDUCATION AND TRAINING
IN PREVENTING DISEASES OF THE NERVOUS SYSTEM. Fcap. 8vo., 6s.II.
THE PATHOLOGY AND TREATMENT OF HYSTERIA. Post
8vo. cloth, 4s. 6d.

DR. CARPENTER, F.R.S.

I.
PRINCIPLES OF HUMAN PHYSIOLOGY. With numerous Illus-
trations on Steel and Wood. Fifth Edition. 8vo. cloth, 26s.II.
PRINCIPLES OF COMPARATIVE PHYSIOLOGY. Illustrated
with 300 Engravings on Wood. Fourth Edition. 8vo. cloth, 24s.III.
A MANUAL OF PHYSIOLOGY. With numerous Illustrations on
Steel and Wood. Third Edition. Fcap. 8vo. cloth, 12s. 6d.IV.
THE MICROSCOPE AND ITS REVELATIONS. With nume-
rous Engravings on Wood. Second Edition. Fcap. 8vo. cloth, 12s. 6d.

DR. CHAMBERS.

DIGESTION AND ITS DERANGEMENTS. Post 8vo. cloth, 10s. 6d.

DR. CHANCE, M.B.

**VIRCHOW'S CELLULAR PATHOLOGY, AS BASED UPON
PHYSIOLOGICAL AND PATHOLOGICAL HISTOLOGY.** With 144 Engravings on Wood. 8vo. cloth, 16s.

MR. H. T. CHAPMAN, F.R.C.S.

I.

**THE TREATMENT OF OBSTINATE ULCERS AND CUTA-
NEOUS ERUPTIONS OF THE LEG WITHOUT CONFINEMENT.** Third
Edition. Post 8vo. cloth, 3s. 6d.

II.

VARICOSE VEINS: their Nature, Consequences, and Treatment, Pallia-
tive and Curative. Post 8vo. cloth, 3s. 6d.

MR. PYE HENRY CHAVASSE, F.R.C.S.

**ADVICE TO A MOTHER ON THE MANAGEMENT OF
HER OFFSPRING.** Fifth Edition. Foolscap 8vo., 2s. 6d.

DR. G. C. CHILD.

**ON INDIGESTION, AND CERTAIN BILIOUS DISORDERS
OFTEN CONJOINED WITH IT.** Second Edition. 8vo. cloth, 6s.

MR. J. PATERSON CLARK, M.A.

**THE ODONTALGIST; OR, HOW TO PRESERVE THE TEETH,
CURE TOOTHACHE, AND REGULATE DENTITION FROM INFANCY
TO AGE.** With plates. Post 8vo. cloth, 5s.

MR. JOHN CLAY, M.R.C.S.

KIWISCH ON DISEASES OF THE OVARIES: Translated, by
permission, from the last German Edition of his Clinical Lectures on the Special Patho-
logy and Treatment of the Diseases of Women. With Notes, and an Appendix on the
Operation of Ovariectomy. Royal 12mo. cloth, 16s.

DR. CONOLLY.

**THE CONSTRUCTION AND GOVERNMENT OF LUNATIC
ASYLUMS AND HOSPITALS FOR THE INSANE.** With Plans. Post 8vo.
cloth, 6s.

MR. COOLEY.

COMPREHENSIVE SUPPLEMENT TO THE PHARMACOPŒIAS.

**THE CYCLOPŒDIA OF PRACTICAL RECEIPTS, AND COL-
LATERAL INFORMATION IN THE ARTS, PROFESSIONS, MANU-
FACTURES, AND TRADES, INCLUDING MEDICINE, PHARMACY, AND
DOMESTIC ECONOMY;** designed as a Compendious Book of Reference for the
Manufacturer, Tradesman, Amateur, and Heads of Families. Third and greatly
enlarged Edition, 8vo. cloth, 26s.

SIR ASTLEY COOPER, BART., F.R.S.

ON THE STRUCTURE AND DISEASES OF THE TESTIS.
With 24 Plates. Second Edition. Royal 4to., 20s.

MR. W. WHITE COOPER.

I.
ON WOUNDS AND INJURIES OF THE EYE. Illustrated by
17 Coloured Figures and 41 Woodcuts. 8vo. cloth, 12s.

II.
ON NEAR SIGHT, AGED SIGHT, IMPAIRED VISION,
AND THE MEANS OF ASSISTING SIGHT. With 31 Illustrations on Wood.
Second Edition. Fcap. 8vo. cloth, 7s. 6d.

MR. COOPER.

A DICTIONARY OF PRACTICAL SURGERY; comprehending all
the most interesting Improvements, from the Earliest Times down to the Present Period.
Seventh Edition. One very thick volume, 8vo., 12. 10s.

MR. HOLMES COOTE, F.R.C.S.

A REPORT ON SOME IMPORTANT POINTS IN THE
TREATMENT OF SYPHILIS. 8vo. cloth, 5s.

DR. COTTLE.

A MANUAL OF HUMAN PHYSIOLOGY FOR STUDENTS;
being a Condensation of the Subject, a Conservation of the Matter, and a Record of
Facts and Principles up to the present Day. Fcap. 8vo., 5s.

DR. COTTON.

I.
ON CONSUMPTION: Its Nature, Symptoms, and Treatment. To
which Essay was awarded the Fothergillian Gold Medal of the Medical Society of
London. Second Edition. 8vo. cloth, 8s.

II.
PHTHISIS AND THE STETHOSCOPE; OR, THE PHYSICAL
SIGNS OF CONSUMPTION. Second Edition. Foolsap 8vo. cloth, 3s.

MR. COULSON.

I.
ON DISEASES OF THE BLADDER AND PROSTATE GLAND.
The Fifth Edition, revised and enlarged. 8vo. cloth, 10s. 6d.

II.
ON LITHOTRITY AND LITHOTOMY; with Engravings on Wood.
8vo. cloth, 8s.

MR. WILLIAM CRAIG, L.F.P.S. GLASGOW.

ON THE INFLUENCE OF VARIATIONS OF ELECTRIC
TENSION AS THE REMOTE CAUSE OF EPIDEMIC AND OTHER
DISEASES. 8vo. cloth, 10s.

MR. CURLING, F.R.S.

I.
OBSERVATIONS ON DISEASES OF THE RECTUM. Second
Edition. 8vo. cloth, 5s.

II.
A PRACTICAL TREATISE ON DISEASES OF THE TESTIS,
SPERMATIC CORD, AND SCROTUM. Second Edition, with Additions. 8vo.
cloth, 14s.

MR. JOHN DALRYMPLE, F.R.S., F.R.C.S.

PATHOLOGY OF THE HUMAN EYE. Complete in Nine Fasciculi:
imperial 4to., 20s. each; half-bound morocco, gilt tops, 9l. 15s.

DR. DAVEY.

I.
THE GANGLIONIC NERVOUS SYSTEM: its Structure, Functions,
and Diseases. 8vo. cloth, 9s.

II.
ON THE NATURE AND PROXIMATE CAUSE OF IN-
SANITY. Post 8vo. cloth, 3s.

DR. HERBERT DAVIES.

ON THE PHYSICAL DIAGNOSIS OF DISEASES OF THE
LUNGS AND HEART. Second Edition. Post 8vo. cloth, 8s.

DR. HALL DAVIS.

ILLUSTRATIONS OF DIFFICULT PARTURITION. Post 8vo.
cloth, 6s. 6d.

MR. DIXON.

A GUIDE TO THE PRACTICAL STUDY OF DISEASES OF
THE EYE. Second Edition. Post 8vo. cloth, 9s.

DR. DOBELL.

DEMONSTRATIONS OF DISEASES IN THE CHEST, AND
THEIR PHYSICAL DIAGNOSIS. Illustrated with Coloured Plates. 8vo. cloth,
12s. 6d.

DR. TOOGOOD DOWNING.

NEURALGIA: its various Forms, Pathology, and Treatment. THE
JACKSONIAN PRIZE ESSAY FOR 1850. 8vo. cloth, 10s. 6d.

DR. DRUITT, F.R.C.S.

THE SURGEON'S VADE-MECUM; with numerous Engravings on
Wood. Eighth Edition. Foolsap 8vo. cloth, 12s. 6d.

MR. DUNN, F.R.C.S.

AN ESSAY ON PHYSIOLOGICAL PSYCHOLOGY. 8vo. cloth, 4s.

DR. JOHN C. EGAN.

SYPHILITIC DISEASES: THEIR PATHOLOGY, DIAGNOSIS,
AND TREATMENT: including Experimental Researches on Inoculation, as a Diffe-
rential Agent in Testing the Character of these Affections. 8vo. cloth, 9s.

SIR JAMES EYRE, M.D.

I.
THE STOMACH AND ITS DIFFICULTIES. Fifth Edition.
Fcap. 8vo. cloth, 2s. 6d.

II.
PRACTICAL REMARKS ON SOME EXHAUSTING DIS-
EASES. Second Edition. Post 8vo. cloth, 4s. 6d.

DR. FENWICK.

ON SCROFULA AND CONSUMPTION. Clergyman's Sore Throat,
Catarrh, Croup, Bronchitis, Asthma. Fcap. 8vo., 2s. 6d.

MR. FERGUSSON, F.R.S.

A SYSTEM OF PRACTICAL SURGERY; with numerous Illustrations on Wood. Fourth Edition. Fcap. 8vo. cloth, 12s. 6d.

SIR JOHN FORBES, M.D., D.C.L. (OXON.), F.R.S.

NATURE AND ART IN THE CURE OF DISEASE. Second Edition. Post 8vo. cloth, 6s.

MR. FOWNES, PH.D., F.R.S.

A MANUAL OF CHEMISTRY; with numerous Illustrations on Wood. Seventh Edition. Fcap. 8vo. cloth, 12s. 6d.

Edited by H. BENGE JONES, M.D., F.R.S., and A. W. HOFMANN, PH.D., F.R.S.

CHEMISTRY, AS EXEMPLIFYING THE WISDOM AND BENEFICENCE OF GOD. Second Edition. Fcap. 8vo. cloth, 4s. 6d.

INTRODUCTION TO QUALITATIVE ANALYSIS. Post 8vo. cloth, 2s.

DR. D. J. T. FRANCIS.

CHANGE OF CLIMATE; considered as a Remedy in Dyspeptic, Pulmonary, and other Chronic Affections; with an Account of the most Eligible Places of Residence for Invalids in Spain, Portugal, Algeria, &c., at different Seasons of the Year; and an Appendix on the Mineral Springs of the Pyrenees, Vichy, and Aix les Bains. Post 8vo. cloth, 8s. 6d.

DR. PATRICK FRASER.

A TREATISE UPON PENETRATING WOUNDS OF THE CHEST. 8vo. cloth, 5s.

C. REMIGIUS FRESENIUS.

ELEMENTARY INSTRUCTION IN CHEMICAL ANALYSIS, AS PRACTISED IN THE LABORATORY OF GIESSEN. Edited by LLOYD BULLOCK, F.C.S.

QUALITATIVE. Fifth Edition. 8vo. cloth, 9s.

QUANTITATIVE. Third Edition. 8vo. cloth, 16s.

DR. FULLER.

ON RHEUMATISM, RHEUMATIC GOUT, AND SCIATICA: their Pathology, Symptoms, and Treatment. Third Edition. 8vo. cloth, 12s. 6d.

DR. GAIRDNER.

ON GOUT; its History, its Causes, and its Cure. Fourth Edition. Post 8vo. cloth, 8s. 6d.

MR. GALLOWAY.

THE FIRST STEP IN CHEMISTRY. Third Edition. Fcap. 8vo. cloth, 5s.

A MANUAL OF QUALITATIVE ANALYSIS. Second Edition. Post 8vo. cloth, 4s. 6d.

MR. F. J. GANT.

THE IRRITABLE BLADDER: its Causes and Curative Treatment. Post 8vo. cloth, 4s. 6d.

DR. GIBB, M.R.C.P.

ON DISEASES OF THE THROAT, EPIGLOTTIS, AND WINDPIPE. Post 8vo. cloth, 5s.

MRS. GODFREY.

ON THE NATURE, PREVENTION, TREATMENT, AND CURE OF SPINAL CURVATURES and DEFORMITIES of the CHEST and LIMBS, without ARTIFICIAL SUPPORTS or any MECHANICAL APPLIANCES. Third Edition, Revised and Enlarged. 8vo. cloth, 5s.

DR. GRANVILLE, F.R.S.

THE MINERAL SPRINGS OF VICHY: their Efficacy in the Treatment of Gout, Indigestion, Gravel, &c. 8vo. cloth, 5s.

II.

ON SUDDEN DEATH. Post 8vo., 2s. 6d.

MR. GRAY, M.R.C.S.

PRESERVATION OF THE TEETH indispensable to Comfort and Appearance, Health, and Longevity. 18mo. cloth, 3s.

MR. GRIFFITHS.

CHEMISTRY OF THE FOUR SEASONS—Spring, Summer, Autumn, Winter. Illustrated with Engravings on Wood. Second Edition. Foolscape 8vo. cloth, 7s. 6d.

DR. GULLY.

THE SIMPLE TREATMENT OF DISEASE; deduced from the Methods of Expectancy and Revulsion. 18mo. cloth, 4s.

DR. GUY.

HOOPER'S PHYSICIAN'S VADE-MECUM; OR, MANUAL OF THE PRINCIPLES AND PRACTICE OF PHYSIC. New Edition, considerably enlarged, and rewritten. Foolscape 8vo. cloth, 12s. 6d.

GUY'S HOSPITAL REPORTS. Third Series. Vols. I. to VI., 8vo., 7s. 6d. each.

DR. HABERSHON, F.R.C.P.

OBSERVATIONS ON DISEASES OF THE ALIMENTARY CANAL, ŒSOPHAGUS, STOMACH, CÆCUM, and INTESTINES. 8vo. cloth, 10s. 6d.

II.

ON THE INJURIOUS EFFECTS OF MERCURY IN THE TREATMENT OF DISEASE. Post 8vo. cloth, 3s. 6d.

DR. MARSHALL HALL, F.R.S.

PRONE AND POSTURAL RESPIRATION IN DROWNING AND OTHER FORMS OF APNŒA OR SUSPENDED RESPIRATION. Post 8vo. cloth, 5s.

II.

PRACTICAL OBSERVATIONS AND SUGGESTIONS IN MEDICINE. Second Series. Post 8vo. cloth, 8s. 6d.

DR. C. RADCLYFFE HALL.

TORQUAY IN ITS MEDICAL ASPECT AS A RESORT FOR
PULMONARY INVALIDS. Post 8vo. cloth, 5s.

MR. HARDWICH.

A MANUAL OF PHOTOGRAPHIC CHEMISTRY. Fifth
Edition. Foolscep 8vo. cloth, 7s. 6d.

MR. HARE, M.R.C.S.

PRACTICAL OBSERVATIONS ON THE PREVENTION,
CAUSES, AND TREATMENT OF CURVATURES OF THE SPINE; with
Engravings. Third Edition. 8vo. cloth, 6s.

DR. JAMES B. HARRISON.

ON THE CONTAMINATION OF WATER BY THE POISON
OF LEAD, and its Effects on the Human Body. Foolscep 8vo. cloth, 3s. 6d.

DR. HARTWIG.

I.

ON SEA BATHING AND SEA AIR. Fcap. 8vo., 2s. 6d.

II.

ON THE PHYSICAL EDUCATION OF CHILDREN. Fcap.
8vo., 2s. 6d.

DR. A. H. HASSALL.

I.

THE MICROSCOPIC ANATOMY OF THE HUMAN BODY,
IN HEALTH AND DISEASE. Illustrated with Several Hundred Drawings in
Colour. Two vols. 8vo. cloth, £1. 10s.

II.

THE URINE, IN HEALTH AND DISEASE; or, a Simple Ex-
planation of the Physical Properties, Composition, and Uses of the Urine, of the Functions
of the Kidneys, and of the Treatment of Urinary Disorders. With Twenty-four En-
gravings. Post 8vo. cloth, 5s.

MR. ALFRED HAVILAND, M.R.C.S.

CLIMATE, WEATHER, AND DISEASE; being a Sketch of the
Opinions of the most celebrated Ancient and Modern Writers with regard to the Influence
of Climate and Weather in producing Disease. With Four coloured Engravings. 8vo.
cloth, 7s.

MR. WILLIAM HAYCOCK, M.R.C.V.S.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF
VETERINARY MEDICINE AND SURGERY. 8vo. boards, 6s. 6d.

DR. HEADLAND.

ON THE ACTION OF MEDICINES IN THE SYSTEM.

Being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal for 1852. Third Edition. 8vo. cloth, 12s. 6d.

DR. HEALE.

A TREATISE ON VITAL CAUSES. 8vo. cloth, 9s.

MR. HIGGINBOTTOM, F.R.S., F.R.C.S.E.

I.

AN ESSAY ON THE USE OF THE NITRATE OF SILVER
IN THE CURE OF INFLAMMATION, WOUNDS, AND ULCERS. Second
Edition. Price 5s.

II.

ADDITIONAL OBSERVATIONS ON THE NITRATE OF SIL-
VER; with full Directions for its Use as a Therapeutic Agent. 8vo., 2s. 6d.

MR. JOHN HILTON, F.R.S.

ON THE DEVELOPMENT AND DESIGN OF CERTAIN POR-
TIONS OF THE CRANIUM. Illustrated with Plates in Lithography. 8vo. cloth, 6s.

DR. HINDS.

THE HARMONIES OF PHYSICAL SCIENCE IN RELATION
TO THE HIGHER SENTIMENTS; with Observations on Medical Studies, and on
the Moral and Scientific Relations of Medical Life. Post 8vo., cloth, 4s.

DR. DECIMUS HODGSON.

THE PROSTATE GLAND, AND ITS ENLARGEMENT IN
OLD AGE. With 12 Plates. Royal 8vo., cloth, 6s.

MR. JABEZ HOGG.

THE OPHTHALMOSCOPE: an Essay on its value in the Exploration
of Internal Eye Diseases. Second Edition. Cloth, 3s. 6d.

MR. LUTHER HOLDEN, F.R.C.S.

I.

HUMAN OSTEOLOGY: with Plates, showing the Attachments of the
Muscles. Second Edition. 8vo. cloth, 16s.

II.

A MANUAL OF THE DISSECTION OF THE HUMAN BODY.
12mo. cloth, 14s.

MR. C. HOLTHOUSE.

I.

ON SQUINTING, PARALYTIC AFFECTIONS OF THE EYE,
and CERTAIN FORMS OF IMPAIRED VISION. Fcap. 8vo. cloth, 4s. 6d.

II.

LECTURES ON STRABISMUS, delivered at the Westminster Hospital.
8vo. cloth, 4s.

DR. W. CHARLES HOOD.

SUGGESTIONS FOR THE FUTURE PROVISION OF CRIMINAL LUNATICS. 8vo. cloth, 5s. 6d.

MR. P. HOOD.

THE SUCCESSFUL TREATMENT OF SCARLET FEVER; also, OBSERVATIONS ON THE PATHOLOGY AND TREATMENT OF CROWING INSPIRATIONS OF INFANTS. Post 8vo. cloth, 5s.

DR. HOOPER.

THE MEDICAL DICTIONARY; containing an Explanation of the Terms used in Medicine and the Collateral Sciences. Eighth Edition. Edited by KLEIN GRANT, M.D. 8vo. cloth, 30s.

MR. JOHN HORSLEY.

A CATECHISM OF CHEMICAL PHILOSOPHY; being a Familiar Exposition of the Principles of Chemistry and Physics. With Engravings on Wood. Designed for the Use of Schools and Private Teachers. Post 8vo. cloth, 6s. 6d.

DR. HUFELAND.

THE ART OF PROLONGING LIFE. Second Edition. Edited by ERASMUS WILSON, F.R.S. Foolscep 8vo., 2s. 6d.

DR. VAUGHAN HUGHES.

BLOOD DISEASE. Crown 8vo. cloth, 4s. 6d.

MR. W. CURTIS HUGMAN, F.R.C.S.

ON HIP-JOINT DISEASE; with reference especially to Treatment by Mechanical Means for the Relief of Contraction and Deformity of the Affected Limb. 8vo. cloth, 3s. 6d.

DR. HENRY HUNT.

ON HEARTBURN AND INDIGESTION. 8vo. cloth, 5s.

DR. INMAN, M.R.C.P.

ON MYALGIA: ITS NATURE, CAUSES, AND TREATMENT; being a Treatise on Painful and other Affections of the Muscular System. Second Edition. 8vo. cloth, 9s.

II.

FOUNDATION FOR A NEW THEORY AND PRACTICE OF MEDICINE. Crown 8vo. cloth, 7s.

DR. ARTHUR JACOB, F.R.C.S.

A TREATISE ON THE INFLAMMATIONS OF THE EYE-BALL. Foolscep 8vo. cloth, 5s.

DR. JAMES JAGO, A.B., CANTAB.; M.B., OXON.

OCULAR SPECTRES AND STRUCTURES AS MUTUAL EXPOSURES. Illustrated with Engravings on Wood. 8vo. cloth, 5s.

MR. J. H. JAMES, F.R.C.S.

PRACTICAL OBSERVATIONS ON THE OPERATIONS FOR
STRANGULATED HERNIA. 8vo. cloth, 5s.

DR. BENGE JONES, F.R.S.

I.

MULDER ON WINE. Foolscap 8vo. cloth, 6s.

II.

ON ANIMAL CHEMISTRY, in its relation to STOMACH and RENAL
DISEASES. 8vo. cloth, 6s.

DR. HANDFIELD JONES, F.R.S., & DR. EDWARD H. SIEVEKING.

A MANUAL OF PATHOLOGICAL ANATOMY. Illustrated with
numerous Engravings on Wood. Foolscap 8vo. cloth, 12s. 6d.

MR. WHARTON JONES, F.R.S.

I.

A MANUAL OF THE PRINCIPLES AND PRACTICE OF
OPHTHALMIC MEDICINE AND SURGERY; illustrated with Engravings, plain
and coloured. Second Edition. Foolscap 8vo. cloth, 12s. 6d.

II.

THE WISDOM AND BENEFICENCE OF THE ALMIGHTY,
AS DISPLAYED IN THE SENSE OF VISION; being the Actonian Prize Essay
for 1851. With Illustrations on Steel and Wood. Foolscap 8vo. cloth, 4s. 6d.

III.

DEFECTS OF SIGHT: their Nature, Causes, Prevention, and General
Management. Fcap. 8vo. 2s. 6d.

IV.

A CATECHISM OF THE MEDICINE AND SURGERY OF
THE EYE AND EAR. For the Clinical Use of Hospital Students. Fcap. 8vo. 2s. 6d.

V.

A CATECHISM OF THE PHYSIOLOGY AND PHILOSOPHY
OF BODY, SENSE, AND MIND. For Use in Schools and Colleges. Fcap. 8vo.,
2s. 6d.

MR. FURNEAUX JORDAN, M.R.C.S.

AN INTRODUCTION TO CLINICAL SURGERY; WITH A
Method of Investigating and Reporting Surgical Cases. Fcap. 8vo. cloth, 5s.

MR. JUDD.

A PRACTICAL TREATISE ON URETHRITIS AND SYPHI-
LIS: including Observations on the Power of the Menstruous Fluid, and of the Dis-
charge from Lencorrhœa and Sores to produce Urethritis: with a variety of Examples,
Experiments, Remedies, and Cures. 8vo. cloth, £1. 5s.

DR. LAENNEC.

A MANUAL OF AUSCULTATION AND PERCUSSION. Translated and Edited by J. B. SHARPE, M.R.C.S. 3s.

DR. LANE, M.A.

HYDROPATHY; OR, HYGIENIC MEDICINE. An Explanatory Essay. Second Edition. Post 8vo. cloth, 5s.

MR. LAWRENCE, F.R.S.

A TREATISE ON RUPTURES. The Fifth Edition, considerably enlarged. 8vo. cloth, 16s.

DR. LEARED, M.R.C.P.

IMPERFECT DIGESTION: ITS CAUSES AND TREATMENT. Foolscep. 8vo. cloth, 4s.

DR. EDWIN LEE.

I.

THE EFFECT OF CLIMATE ON TUBERCULOUS DISEASE, with Notices of the chief Foreign Places of Winter Resort. Small 8vo. cloth, 5s. 6d.

II.

THE WATERING PLACES OF ENGLAND, CONSIDERED with Reference to their Medical Topography. Fourth Edition. Foolscep 8vo. cloth, 7s. 6d.

III.

THE BATHS OF GERMANY, FRANCE, & SWITZERLAND. Third Edition. Post 8vo. cloth, 8s. 6d.

IV.

THE BATHS OF RHENISH GERMANY. Post 8vo. cloth, 4s.

V.

HOMŒOPATHY AND HYDROPATHY IMPARTIALLY APPRECIATED. With Notes illustrative of the Influence of the Mind over the Body. Fourth Edition. Post 8vo. cloth, 3s. 6d.

DR. ROBERT LEE, F.R.S.

I.

A TREATISE ON THE SPECULUM; with Three Hundred Cases. 8vo. cloth, 4s. 6d.

II.

CLINICAL REPORTS OF OVARIAN AND UTERINE DISEASES, with Commentaries. Foolscep 8vo. cloth, 6s. 6d.

III.

CLINICAL MIDWIFERY: comprising the Histories of 545 Cases of Difficult, Preternatural, and Complicated Labour, with Commentaries. Second Edition. Foolscep 8vo. cloth, 5s.

IV.

PRACTICAL OBSERVATIONS ON DISEASES OF THE UTERUS. With coloured Plates. Two Parts. Imperial 4to., 7s. 6d. each Part.

MR. LISTON, F.R.S.

PRACTICAL SURGERY. Fourth Edition. 8vo. cloth, 22s.

MR. H. W. LOBB, L.S.A., M.R.C.S.E.

ON SOME OF THE MORE OBSCURE FORMS OF NERVOUS AFFECTIONS, THEIR PATHOLOGY AND TREATMENT. With an Introduction on the Physiology of Digestion and Assimilation, and the Generation and Distribution of Nerve Force. Based upon Original Microscopical Observations. With Engravings. 8vo. cloth, 10s. 6d.

LONDON MEDICAL SOCIETY OF OBSERVATION.

WHAT TO OBSERVE AT THE BED-SIDE, AND AFTER DEATH. Published by Authority. Second Edition. Foolscep 8vo. cloth, 4s. 6d.

M. LUGOL.

ON SCROFULOUS DISEASES. Translated from the French, with Additions by W. H. RANKING, M.D., Physician to the Suffolk General Hospital. 8vo. cloth, 10s. 6d.

MR. M'CLELLAND, F.L.S., F.G.S.

SKETCH OF THE MEDICAL TOPOGRAPHY, OR CLIMATE AND SOILS, OF BENGAL AND THE N. W. PROVINCES. Post 8vo. cloth, 4s. 6d.

DR. GEORGE H. B. MACLEOD, F.R.C.S. (EDIN.)

NOTES ON THE SURGERY OF THE CRIMEAN WAR; with REMARKS on GUN-SHOT WOUNDS. 8vo. cloth, 10s. 6d.

MR. JOSEPH MACLISE, F.R.C.S.

I.

SURGICAL ANATOMY. A Series of Dissections, illustrating the Principal Regions of the Human Body.

The Second Edition, complete in XIII. Fasciculi, imperial folio, 5s. each. Bound in cloth, £3. 12s.; or in morocco, £4. 4s.

II.

ON DISLOCATIONS AND FRACTURES. This Work is Uniform with the Author's "Surgical Anatomy;" each Fasciculus contains Four beautifully executed Lithographic Drawings. Complete in Nine Fasciculi, imperial folio, 5s. each. Bound in cloth, £2. 10s.; or in morocco, £2. 17s.

DR. MARCET, F.R.S.

I.

ON THE COMPOSITION OF FOOD, AND HOW IT IS ADULTERATED; with Practical Directions for its Analysis. 8vo. cloth, 6s. 6d.

II.

ON CHRONIC ALCOHOLIC INTOXICATION, OR ALCOHOLIC STIMULANTS IN CONNEXION WITH THE NERVOUS SYSTEM. Foolscep 8vo. cloth, 3s. 6d.

DR. MARKHAM.

I.

DISEASES OF THE HEART: THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT. Second Edition. Post 8vo. cloth, 6s.

II.

SKODA ON AUSCULTATION AND PERCUSSION. Post 8vo. cloth, 6s.

SIR J. RANALD MARTIN, K.C.B., F.R.S.

THE INFLUENCE OF TROPICAL CLIMATES ON EUROPEAN CONSTITUTIONS. Originally by the late JAMES JOHNSON, M.D., and now entirely rewritten; including Practical Observations on the Diseases of European Invalids on their Return from Tropical Climates. Seventh Edition. 8vo. cloth, 16s.

DR. MASSY.

ON THE EXAMINATION OF RECRUITS; intended for the Use of Young Medical Officers on Entering the Army. 8vo. cloth, 5s.

DR. MAYNE.

AN EXPOSITORY LEXICON OF THE TERMS, ANCIENT AND MODERN, IN MEDICAL AND GENERAL SCIENCE, including a complete MEDICAL AND MEDICO-LEGAL VOCABULARY, and presenting the correct Pronunciation, Derivation, Definition, and Explanation of the Names, Analogues, Synonymes, and Phrases (in English, Latin, Greek, French, and German,) employed in Science and connected with Medicine. Complete in 10 Parts, price 5s. each.

MR. MAUNDER, F.R.C.S.

RICORD'S LECTURES ON CHANCRE. With Remarks on Perinaeal Section of Stricture of the Urethra. 8vo. cloth, 8s.

DR. MILLINGEN.

ON THE TREATMENT AND MANAGEMENT OF THE INSANE; with Considerations on Public and Private Lunatic Asylums. 18mo. cloth, 4s. 6d.

MR. JOHN L. MILTON, M.R.C.S.

PRACTICAL OBSERVATIONS ON A NEW WAY OF TREATING GONORRHOEA. With some Remarks on the Cure of Inveterate Cases. 8vo. cloth, 5s.

DR. MONRO.

REFORM IN PRIVATE LUNATIC ASYLUMS. 8vo. cloth, 4s.

DR. NOBLE.

THE HUMAN MIND IN ITS RELATIONS WITH THE BRAIN AND NERVOUS SYSTEM. Post 8vo. cloth, 4s. 6d.

MR. NOURSE, M.R.C.S.

TABLES FOR STUDENTS. Price One Shilling the Set.

1. Divisions and Classes of the Animal Kingdom.
2. Classes and Orders of the Vertebrate Sub-kingdom.
3. Classes of the Vegetable Kingdom, according to the Natural and Artificial Systems.
4. Table of the Elements, with their Chemical Equivalents and Symbols.

MR. NUNNELEY, F.R.C.S.E.

I.

ON THE ORGANS OF VISION: THEIR ANATOMY AND PHYSIOLOGY. With Plates, 8vo. cloth, 15s.

II.

A TREATISE ON THE NATURE, CAUSES, AND TREATMENT OF ERYSIPELAS. 8vo. cloth, 10s. 6d.

DR. ODLING.

A COURSE OF PRACTICAL CHEMISTRY, FOR THE USE OF MEDICAL STUDENTS. Arranged with express reference to the Three Months' Summer Course. Post 8vo. cloth, 4s. 6d.

TRANSACTIONS OF THE ODONTOLOGICAL SOCIETY OF LONDON. With Plates. Vol. I., 8vo. cloth, 8s. 6d.

MR. PAGET.

A DESCRIPTIVE CATALOGUE OF THE ANATOMICAL MUSEUM OF ST. BARTHOLOMEW'S HOSPITAL. Vol. I. Morbid Anatomy. 8vo. cloth, 5s.

DITTO. Vol. II. Natural and Congenitally Malformed Structures, and Lists of the Models, Casts, Drawings, and Diagrams. 5s.

MR. LANGSTON PARKER.

THE MODERN TREATMENT OF SYPHILITIC DISEASES, both Primary and Secondary; comprising the Treatment of Constitutional and Confirmed Syphilis, by a safe and successful Method. Fourth Edition, 8vo. cloth, 10s.

DR. PARKIN.

THE CAUSATION AND PREVENTION OF DISEASE. 8vo. cloth, 5s.

MR. JAMES PART, F.R.C.S.

THE MEDICAL AND SURGICAL POCKET CASE BOOK, for the Registration of important Cases in Private Practice, and to assist the Student of Hospital Practice. Second Edition. 3s. 6d.

DR. THOMAS B. PEACOCK, M.D.

ON THE INFLUENZA, OR EPIDEMIC CATARRHAL FEVER OF 1847-8. 8vo. cloth, 5s. 6d.

MR. OLIVER PEMBERTON, M.R.C.S.

OBSERVATIONS ON THE HISTORY, PATHOLOGY, AND
TREATMENT OF CANCEROUS DISEASES. Part I.—MELANOSIS. With
coloured Plates. Royal 8vo. cloth, 4s. 6d.

DR. PEREIRA, F.R.S.

SELECTA E PRÆSCRIPTIS: with a Key, containing the Prescriptions
in an Unabbreviated Form, and a Literal Translation. Twelfth Edition. 24mo. cloth, 5s.

MR. PETTIGREW, F.R.S.

ON SUPERSTITIONS connected with the History and Practice of
Medicine and Surgery. 8vo. cloth, 7s.

DR. PICKFORD.

HYGIENE; or, Health as Depending upon the Conditions of the Atmo-
sphere, Food and Drinks, Motion and Rest, Sleep and Wakefulness, Secretions,
Excretions, and Retentions, Mental Emotions, Clothing, Bathing, &c. Vol. I. 8vo.
cloth, 9s.

MR. PIRRIE, F.R.S.E.

THE PRINCIPLES AND PRACTICE OF SURGERY. With
numerous Engravings on Wood. Second Edition. 8vo. cloth, 24s.

PHARMACOPŒIA COLLEGII REGALIS MEDICORUM LON-
DINENSIS. 8vo. cloth, 9s.; or 24mo. 5s.

IMPRIMATUR.

Hic liber, cui titulus, PHARMACOPŒIA COLLEGII REGALIS MEDICORUM LONDINENSIS.
Datum ex Ædibus Collegii in comitiis censoriis, Novembris Mensis 14^{to} 1850.

JOHANNES AYRTON PARIS. *Præses.*

PROFESSORS PLATTNER & MUSPRATT.

THE USE OF THE BLOWPIPE IN THE EXAMINATION OF
MINERALS, ORES, AND OTHER METALLIC COMBINATIONS. Illustrated
by numerous Engravings on Wood. Third Edition. 8vo. cloth, 10s. 6d.

THE PRESCRIBER'S PHARMACOPŒIA; containing all the Medi-
cines in the London Pharmacopœia, arranged in Classes according to their Action, with
their Composition and Doses. By a Practising Physician. Fourth Edition. 32mo.
cloth, 2s. 6d.; roan tuck (for the pocket), 3s. 6d.

DR. JOHN ROWLISON PRETTY.

AIDS DURING LABOUR, including the Administration of Chloroform,
the Management of Placenta and Post-partum Hæmorrhage. Fcap. 8vo. cloth, 4s. 6d.

MR. LAKE PRICE.

PHOTOGRAPHIC MANIPULATION: Treating of the Practice of
the Art, and its various appliances to Nature. With Fifty Engravings on Wood. Post
8vo. cloth, 6s. 6d.

DR. PRIESTLEY.

LECTURES ON THE DEVELOPMENT OF THE GRAVID
UTERUS. 8vo. cloth, 5s. 6d.

SIR WM. PYM, K.O.H.

OBSERVATIONS UPON YELLOW FEVER, with a Review of
"A Report upon the Diseases of the African Coast, by Sir WM. BURNETT and
Dr. BRYSON," proving its highly Contagious Powers. Post 8vo. 6s.

DR. RADOLIFFE.

EPILEPSY, AND OTHER CONVULSIVE AFFECTION ; their
Pathology and Treatment. Second Edition. Post 8vo. cloth, 7s. 6d.

MR. RAINEY.

ON THE MODE OF FORMATION OF SHELLS OF ANIMALS,
OF BONE, AND OF SEVERAL OTHER STRUCTURES, by a Process of
Molecular Coalescence, Demonstrable in certain Artificially-formed Products. Fcap. 8vo.
cloth, 4s. 6d.

DR. F. H. RAMSBOTHAM.

THE PRINCIPLES AND PRACTICE OF OBSTETRIC MEDI-
CINE AND SURGERY. Illustrated with One Hundred and Twenty Plates on Steel
and Wood; forming one thick handsome volume. Fourth Edition. 8vo. cloth, 22s.

DR. RAMSBOTHAM.

PRACTICAL OBSERVATIONS ON MIDWIFERY, with a Selection
of Cases. Second Edition. 8vo. cloth, 12s.

DR. DU BOIS REYMOND.

ANIMAL ELECTRICITY; Edited by H. BENGE JONES, M.D., F.R.S.
With Fifty Engravings on Wood. Foolscap 8vo. cloth, 6s.

DR. REYNOLDS.

THE DIAGNOSIS OF DISEASES OF THE BRAIN, SPINAL
CORD, AND THEIR APPENDAGES. 8vo. cloth, 8s.

DR. B. W. RICHARDSON.

I.

ON THE CAUSE OF THE COAGULATION OF THE BLOOD.
Being the ASTLEY COOPER PRIZE ESSAY for 1856. With a Practical Appendix.
8vo. cloth, 16s.

II.

THE HYGIENIC TREATMENT OF PULMONARY CONSUMP-
TION. 8vo. cloth, 5s. 6d.

MR. WILLIAM ROBERTS.

AN ESSAY ON WASTING PALSY; being a Systematic Treatise on the Disease hitherto described as ATROPHIE MUSCULAIRE PROGRESSIVE. With Four Plates. 8vo. cloth, 7s. 6d.

DR. W. H. ROBERTSON.

I.
THE NATURE AND TREATMENT OF GOUT.
8vo. cloth, 10s. 6d.

II.
A TREATISE ON DIET AND REGIMEN.

Fourth Edition. 2 vols. post 8vo. cloth, 12s.

DR. ROWE, F.S.A.

I.
ON SOME OF THE MORE IMPORTANT DISEASES OF WOMEN and CHILDREN. Second Edition. Fcap. 8vo. cloth, 4s. 6d.

II.
NERVOUS DISEASES, LIVER AND STOMACH COMPLAINTS, LOW SPIRITS, INDIGESTION, GOUT, ASTHMA, AND DISORDERS PRODUCED BY TROPICAL CLIMATES. With Cases. Sixteenth Edition. Fcap. 8vo. 2s. 6d.

DR. ROYLE, F.R.S.

A MANUAL OF MATERIA MEDICA AND THERAPEUTICS.
With numerous Engravings on Wood. Third Edition. Fcap. 8vo. cloth, 12s. 6d.

MR. RUMSEY, F.R.C.S.

ESSAYS ON STATE MEDICINE. 8vo. cloth, 10s. 6d.

DR. SALTER, F.R.S.

ON ASTHMA: its Pathology, Causes, Consequences, and Treatment.
8vo. cloth, 10s.

MR. SAVORY.

A COMPENDIUM OF DOMESTIC MEDICINE, AND COMPANION TO THE MEDICINE CHEST; comprising Plain Directions for the Employment of Medicines, with their Properties and Doses, and Brief Descriptions of the Symptoms and Treatment of Diseases, and of the Disorders incidental to Infants and Children, with a Selection of the most efficacious Prescriptions. Intended as a Source of Easy Reference for Clergymen, and for Families residing at a Distance from Professional Assistance. Fifth Edition. 12mo. cloth, 5s.

DR. SCHACHT.

THE MICROSCOPE, AND ITS APPLICATION TO VEGETABLE ANATOMY AND PHYSIOLOGY. Edited by FREDERICK CURREY, M.A. Fcap. 8vo. cloth, 6s.

DR. SEMPLE.

ON COUGH: its Causes, Varieties, and Treatment. With some practical Remarks on the Use of the Stethoscope as an aid to Diagnosis. Post 8vo. cloth, 4s. 6d.

MR. SHAW, M.R.C.S.

THE MEDICAL REMEMBRANCER; OR, BOOK OF EMERGENCIES: in which are concisely pointed out the Immediate Remedies to be adopted in the First Moments of Danger from Poisoning, Apoplexy, Burns, and other Accidents; with the Tests for the Principal Poisons, and other useful Information. Fourth Edition. Edited, with Additions, by JONATHAN HUTCHINSON, M.R.C.S. 32mo. cloth, 2s. 6d.

DR. SIBSON, F.R.S.

MEDICAL ANATOMY. With coloured Plates. Imperial folio. Fasciculi I. to VI. 5s. each.

DR. E. H. SIEVEKING.

ON EPILEPSY AND EPILEPTIFORM SEIZURES: their Causes, Pathology, and Treatment. Post 8vo. cloth, 7s. 6d.

MR. SINCLAIR AND DR. JOHNSTON.

PRACTICAL MIDWIFERY: Comprising an Account of 13,748 Deliveries, which occurred in the Dublin Lying-in Hospital, during a period of Seven Years. 8vo. cloth, 15s.

MR. ALFRED SMEE, F.R.S.

GENERAL DEBILITY AND DEFECTIVE NUTRITION; their Causes, Consequences, and Treatment. Fcap. 8vo. cloth, 3s. 6d.

DR. SMELLIE.

OBSTETRIC PLATES: being a Selection from the more Important and Practical Illustrations contained in the Original Work. With Anatomical and Practical Directions. 8vo. cloth, 5s.

MR. HENRY SMITH, F.R.C.S.

ON STRICTURE OF THE URETHRA. 8vo. cloth, 7s. 6d.

HÆMORRHOIDS AND PROLAPSUS OF THE RECTUM: Their Treatment by the Application of Nitric Acid. Second Edition. Fcap. 8vo. cloth, 3s.

DR. W. TYLER SMITH.

A MANUAL OF OBSTETRICS, THEORETICAL AND PRACTICAL. Illustrated with 186 Engravings. Fcap. 8vo. cloth, 12s. 6d.

THE PATHOLOGY AND TREATMENT OF LEUCORRHOEA. With Engravings on Wood. 8vo. cloth, 7s.

DR. SNOW.

ON CHLOROFORM AND OTHER ANÆSTHETICS: THEIR ACTION AND ADMINISTRATION. Edited, with a Memoir of the Author, by Benjamin W. Richardson, M.D. 8vo. cloth, 10s. 6d.

DR. STANHOPE TEMPLEMAN SPEER.

PATHOLOGICAL CHEMISTRY, IN ITS APPLICATION TO THE PRACTICE OF MEDICINE. Translated from the French of MM. BEQUEREL and RODIER. 8vo. cloth, 12s.

DR. SPURGIN.

LECTURES ON MATERIA MEDICA, AND ITS RELATIONS TO THE ANIMAL ECONOMY. Delivered before the Royal College of Physicians. 8vo. cloth, 5s. 6d.

DR. STEGGALL.

STUDENTS' BOOKS FOR EXAMINATION.

I.

A MEDICAL MANUAL FOR APOTHECARIES' HALL AND OTHER MEDICAL BOARDS. Twelfth Edition. 12mo. cloth, 10s.

II.

A MANUAL FOR THE COLLEGE OF SURGEONS; intended for the Use of Candidates for Examination and Practitioners. Second Edition. 12mo. cloth, 10s.

III.

GREGORY'S CONSPECTUS MEDICINÆ THEORETICÆ. The First Part, containing the Original Text, with an Ordo Verborum, and Literal Translation. 12mo. cloth, 10s.

IV.

THE FIRST FOUR BOOKS OF CELSUS; containing the Text, Ordo Verborum, and Translation. Second Edition. 12mo. cloth, 8s.

V.

A TEXT-BOOK OF MATERIA-MEDICA AND THERAPEUTICS. 12mo. cloth, 7s.

VI.

FIRST LINES FOR CHEMISTS AND DRUGGISTS PREPARING FOR EXAMINATION AT THE PHARMACEUTICAL SOCIETY. Second Edition. 18mo. cloth, 3s. 6d.

MR. STOWE, M.R.C.S.

A TOXICOLOGICAL CHART, exhibiting at one view the Symptoms, Treatment, and Mode of Detecting the various Poisons, Mineral, Vegetable, and Animal. To which are added, concise Directions for the Treatment of Suspended Animation. Eleventh Edition. On Sheet, 2s.; mounted on Roller, 5s.

DR. SWAYNE.

OBSTETRIC APHORISMS FOR THE USE OF STUDENTS COMMENCING MIDWIFERY PRACTICE. With Engravings on Wood. Fcap. 8vo. cloth, 3s. 6d.

MR. TAMPLIN, F.R.C.S.E.

LATERAL CURVATURE OF THE SPINE: its Causes, Nature, and Treatment. 8vo. cloth, 4s.

DR. ALFRED S. TAYLOR, F.R.S.

I.

A MANUAL OF MEDICAL JURISPRUDENCE. Sixth Edition.
Fcap. 8vo. cloth, 12s. 6d.

II.

ON POISONS, in relation to MEDICAL JURISPRUDENCE AND
MEDICINE. Second Edition. Fcap. 8vo. cloth, 12s. 6d.

MR. TEALE.

ON AMPUTATION BY A LONG AND A SHORT RECTAN-
GULAR FLAP. With Engravings on Wood. 8vo. cloth, 5s.

DR. THEOPHILUS THOMPSON, F.R.S.

I.

CLINICAL LECTURES ON PULMONARY CONSUMPTION.
With Plates. 8vo. cloth, 7s. 6d.

II.

LETTESOMIAN LECTURES ON PULMONARY CONSUMPTION;
with Remarks on Microscopical Indications, and on Cocoa-nut Oil. Post 8vo., 2s. 6d.

DR. THOMAS.

THE MODERN PRACTICE OF PHYSIC; exhibiting the Symp-
toms, Causes, Morbid Appearances, and Treatment of the Diseases of all Climates.
Eleventh Edition. Revised by ALGERNON FRAMPTON, M.D. 2 vols. 8vo. cloth, 28s.

MR. HENRY THOMPSON, M.B. LOND., F.R.C.S.

I.

STRICTURE OF THE URETHRA; its Pathology and Treatment.
The last Jacksonian Treatise of the Royal College of Surgeons. With Plates. Second
Edition. 8vo. cloth, 10s.

II.

THE ENLARGED PROSTATE; its Pathology and Treatment. With
Observations on the Relation of this Complaint to Stone in the Bladder. With Plates.
8vo. cloth, 7s. 6d.

DR. TILT.

I.

ON DISEASES OF WOMEN AND OVARIAN INFLAM-
MATION IN RELATION TO MORBID MENSTRUATION, STERILITY,
PELVIC TUMOURS, AND AFFECTIONS OF THE WOMB. Second Edition.
8vo. cloth, 9s.

II.

THE CHANGE OF LIFE IN HEALTH AND DISEASE: a
Practical Treatise on the Nervous and other Affections incidental to Women at the Decline
of Life. Second Edition. 8vo. cloth, 6s.

DR. THUDICHUM.

A TREATISE ON THE PATHOLOGY OF THE URINE,

Including a complete Guide to its Analysis. With Plates, 8vo. cloth, 14s.

DR. GODWIN TIMMS.

CONSUMPTION: its True Nature and Successful Treatment. Crown
8vo. cloth, 10s.

DR. ROBERT B. TODD, F.R.S.

CLINICAL LECTURES ON THE PRACTICE OF MEDICINE:—

VOL. I.—PARALYSIS, DISEASES OF THE BRAIN, and other AFFECTIONS of the NERVOUS SYSTEM. Second Edition. Foolscap 8vo. cloth, 6s.

VOL. II.—CERTAIN DISEASES OF THE URINARY ORGANS, AND ON DROPSIES. Fcap. 8vo. cloth, 6s.

VOL. III.—ON CERTAIN ACUTE DISEASES. Foolscap 8vo. cloth, 6s.

MR. TOMES, F.R.S.

A MANUAL OF DENTAL SURGERY. With 208 Engravings on Wood. Fcap. 8vo. cloth, 12s. 6d.

MR. JOSEPH TOYNBEE, F.R.S., F.R.C.S.

THE DISEASES OF THE EAR: THEIR NATURE, DIAGNOSIS, AND TREATMENT. Illustrated with numerous Engravings on Wood.
8vo. cloth, 15s.

DR. TURNBULL.

I.

AN INQUIRY INTO THE CURABILITY OF CONSUMPTION, ITS PREVENTION, AND THE PROGRESS OF IMPROVEMENT IN THE TREATMENT. Third Edition. 8vo. cloth, 6s.

II.

A PRACTICAL TREATISE ON DISORDERS OF THE STOMACH with FERMENTATION; and on the Causes and Treatment of Indigestion, &c. 8vo. cloth, 6s.**VESTIGES OF THE NATURAL HISTORY OF CREATION.**

Tenth Edition. Illustrated with 100 Engravings on Wood. 8vo. cloth, 12s. 6d.

BY THE SAME AUTHOR.

EXPLANATIONS: A SEQUEL TO "VESTIGES."

Second Edition. Post 8vo. cloth, 5s.

DR. UNDERWOOD.

TREATISE ON THE DISEASES OF CHILDREN. Tenth Edition,
with Additions and Corrections by HENRY DAVIES, M.D. 8vo. cloth, 15s.

DR. UNGER.

BOTANICAL LETTERS. Translated by Dr. B. PAUL. Numerous
Woodcuts. Post 8vo., 5s.

MR. WADE, F.R.C.S.

**STRICTURE OF THE URETHRA, ITS COMPLICATIONS
AND EFFECTS;** a Practical Treatise on the Nature and Treatment of those
Affections. Fourth Edition. 8vo. cloth, 7s. 6d.

DR. WALLER.

ELEMENTS OF PRACTICAL MIDWIFERY; or, Companion to
the Lying-in Room. Fourth Edition, with Plates. Fcap. cloth, 4s. 6d.

MR. HAYNES WALTON, F.R.C.S.

OPERATIVE OPHTHALMIC SURGERY. With Engravings on
Wood. 8vo. cloth, 18s.

DR. WATERS, M.R.C.P.

THE ANATOMY OF THE HUMAN LUNG. The Prize Essay
to which the Fothergillian Gold Medal was awarded by the Medical Society of London.
Post 8vo. cloth, 6s. 6d.

DR. EBEN. WATSON, A.M.

**ON THE TOPICAL MEDICATION OF THE LARYNX IN
CERTAIN DISEASES OF THE RESPIRATORY AND VOCAL ORGANS.**
8vo. cloth, 5s.

DR. WEBER.

**A CLINICAL HAND-BOOK OF AUSCULTATION AND PER-
CUSSION.** Translated by JOHN COCKLE, M.D. 5s.

DR. WEGG.

**OBSERVATIONS RELATING TO THE SCIENCE AND ART
OF MEDICINE.** 8vo. cloth, 8s.

MR. T. SPENCER WELLS, F.R.C.S.

**PRACTICAL OBSERVATIONS ON GOUT AND ITS COMPLI-
CATIONS,** and on the Treatment of Joints Stiffened by Gouty Deposits. Foolsap 8vo.
cloth, 5s.

DR. WEST.

LECTURES ON THE DISEASES OF WOMEN. Second Edition.
8vo. cloth, 16s.

MR. WHEELER.

HAND-BOOK OF ANATOMY FOR STUDENTS OF THE FINE ARTS. New Edition, with Engravings on Wood. Fcap. 8vo., 2s. 6d.

DR. WHITEHEAD, F.R.C.S.

ON THE TRANSMISSION FROM PARENT TO OFFSPRING OF SOME FORMS OF DISEASE, AND OF MORBID TAINTS AND TENDENCIES. Second Edition. 8vo. cloth, 10s. 6d.

DR. WILLIAMS, F.R.S.

PRINCIPLES OF MEDICINE: An Elementary View of the Causes, Nature, Treatment, Diagnosis, and Prognosis, of Disease. With brief Remarks on Hygienics, or the Preservation of Health. The Third Edition. 8vo. cloth, 15s.

THE WIFE'S DOMAIN: the YOUNG COUPLE—the MOTHER—the NURSE—the NURSING. Post 8vo. cloth, 3s. 6d.

DR. JOSEPH WILLIAMS.

INSANITY: its Causes, Prevention, and Cure; including Apoplexy, Epilepsy, and Congestion of the Brain. Second Edition. Post 8vo. cloth, 10s. 6d.

DR. J. HUME WILLIAMS.

UNSOUNDNESS OF MIND, IN ITS MEDICAL AND LEGAL CONSIDERATIONS. 8vo. cloth, 7s. 6d.

DR. WILLIAMSON, STAFF-SURGEON.

NOTES ON THE WOUNDED FROM THE MUTINY IN INDIA: with a Description of the Preparations of Gunshot Injuries contained in the Museum at Fort Pitt. With Lithographic Plates. 8vo. cloth, 12s.

MR. ERASMUS WILSON, F.R.S.

I.

THE ANATOMIST'S VADE-MECUM: A SYSTEM OF HUMAN ANATOMY. With numerous Illustrations on Wood. Seventh Edition. Foolscap 8vo. cloth, 12s. 6d.

II.

DISEASES OF THE SKIN: A Practical and Theoretical Treatise on the DIAGNOSIS, PATHOLOGY, and TREATMENT OF CUTANEOUS DISEASES. Fourth Edition. 8vo. cloth, 16s.

THE SAME WORK; illustrated with finely executed Engravings on Steel, accurately coloured. 8vo. cloth, 34s.

MR. ERASMUS WILSON, F.R.S. (*continued*).

III.

HEALTHY SKIN: A Treatise on the Management of the Skin and Hair in relation to Health. Sixth Edition. Foolsap 8vo. 2s. 6d.

IV.

PORTRAITS OF DISEASES OF THE SKIN. Folio. Fasciculi I. to XII., completing the Work. 20s. each.

V.

ON SYPHILIS, CONSTITUTIONAL AND HEREDITARY; AND ON SYPHILITIC ERUPTIONS. With Four Coloured Plates. 8vo. cloth, 16s.

VI.

A THREE WEEKS' SCAMPER THROUGH THE SPAS OF GERMANY AND BELGIUM, with an Appendix on the Nature and Uses of Mineral Waters. Post 8vo. cloth, 6s. 6d.

DR. FORBES WINSLOW, D.C.L. OXON.

I.

ON OBSCURE DISEASES OF THE BRAIN AND MIND: their Incipient Symptoms, Pathology, Diagnosis, Treatment, and Prophylaxis. 8vo. cloth, 16s.

II.

LETTSONIAN LECTURES ON INSANITY. 8vo. cloth, 5s.

DR. G. C. WITTSTEIN.

PRACTICAL PHARMACEUTICAL CHEMISTRY: An Explanation of Chemical and Pharmaceutical Processes, with the Methods of Testing the Purity of the Preparations, deduced from Original Experiments. Translated from the Second German Edition, by STEPHEN DARBY. 18mo. cloth, 6s.

DR. HENRY G. WRIGHT.

HEADACHES; their Causes and their Cure. Third Edition. Fcap. 8vo. 2s. 6d.

MR. YEARSLEY.

I.

DEAFNESS PRACTICALLY ILLUSTRATED; being an Exposition of Original Views as to the Causes and Treatment of Diseases of the Ear. Fifth Edition. Foolsap 8vo., 2s. 6d.

II.

ON THE ENLARGED TONSIL AND ELONGATED UVULA, and other Morbid Conditions of the Throat. Seventh Edition. 8vo. cloth, 5s.

CHURCHILL'S SERIES OF MANUALS.

Fcap. 8vo. cloth, 12s. 6d. each.

"We here give Mr. Churchill public thanks for the positive benefit conferred on the Medical Profession, by the series of beautiful and cheap Manuals which bear his imprint."—*British and Foreign Medical Review.*

AGGREGATE SALE, 116,000 COPIES.

The ANATOMIST'S VADE-MECUM. A System of Human Anatomy. With numerous Illustrations on Wood. Seventh Edition. By ERASMUS WILSON, F.R.C.S., F.R.S.

CHEMISTRY. With numerous Illustrations on Wood. Seventh Edition. By GEORGE FOWNES, F.R.S. Edited by H. BENICE JONES, M.D., F.R.C.P., and A. W. HOFMANN, F.R.S.

DENTAL SURGERY. With 208 Illustrations on Wood. By JOHN TOMES, F.R.S.

MATERIA MEDICA. With numerous Illustrations on Wood. Third Edition. By J. FORBES ROYLE, M.D., F.R.S., and FREDERICK W. HEADLAND, M.D., F.L.S.

MEDICAL JURISPRUDENCE. Sixth Edition. By ALFRED SWAINE TAYLOR, M.D., F.R.S.

PRACTICE OF MEDICINE. By G. HILARO BARLOW, M.D., M.A.

The MICROSCOPE and its REVELATIONS. With numerous Illustrations on Wood. Second Edition. By W. B. CARPENTER, M.D., F.R.S.

NATURAL PHILOSOPHY. With numerous Illustrations on Wood. Fifth Edition. By GOLDING BIRD, M.D., M.A., F.R.S., and CHARLES BROOKE, M.B., M.A., F.R.S.

OBSTETRICS. With 186 Engravings on Wood. By W. TYLER SMITH, M.D., L.R.C.P.

OPHTHALMIC MEDICINE and SURGERY. With coloured Engravings on Steel, and numerous Illustrations on Wood. Second Edition. By T. WHARTON JONES, F.R.C.S., F.R.S.

PATHOLOGICAL ANATOMY. With numerous Illustrations on Wood. By C. HANDFIELD JONES, M.B., F.R.C.P., and E. H. SIEVEKING, M.D., F.R.C.P.

PHYSIOLOGY. With numerous Illustrations on Steel and Wood. Third Edition. By WILLIAM B. CARPENTER, M.D., F.R.S.

POISONS. Second Edition. By ALFRED SWAINE TAYLOR, M.D., F.R.S.

PRACTICAL SURGERY. With numerous Illustrations on Wood. Fourth Edition. By WILLIAM FERGUSSON, F.R.C.S.